

*SPECIAL UNDERWATER PHOTOGRAPHY ISSUE



skin diver

\$1.50
IN CANADA
\$1.75

FOREMOST AUTHORITY IN ITS FIELD MAY 1979

**CREATE STARTLING EFFECTS
WITH STROBE PHOTOGRAPHY**

**ENROLL IN AN UNDERWATER
PHOTOGRAPHY COURSE**

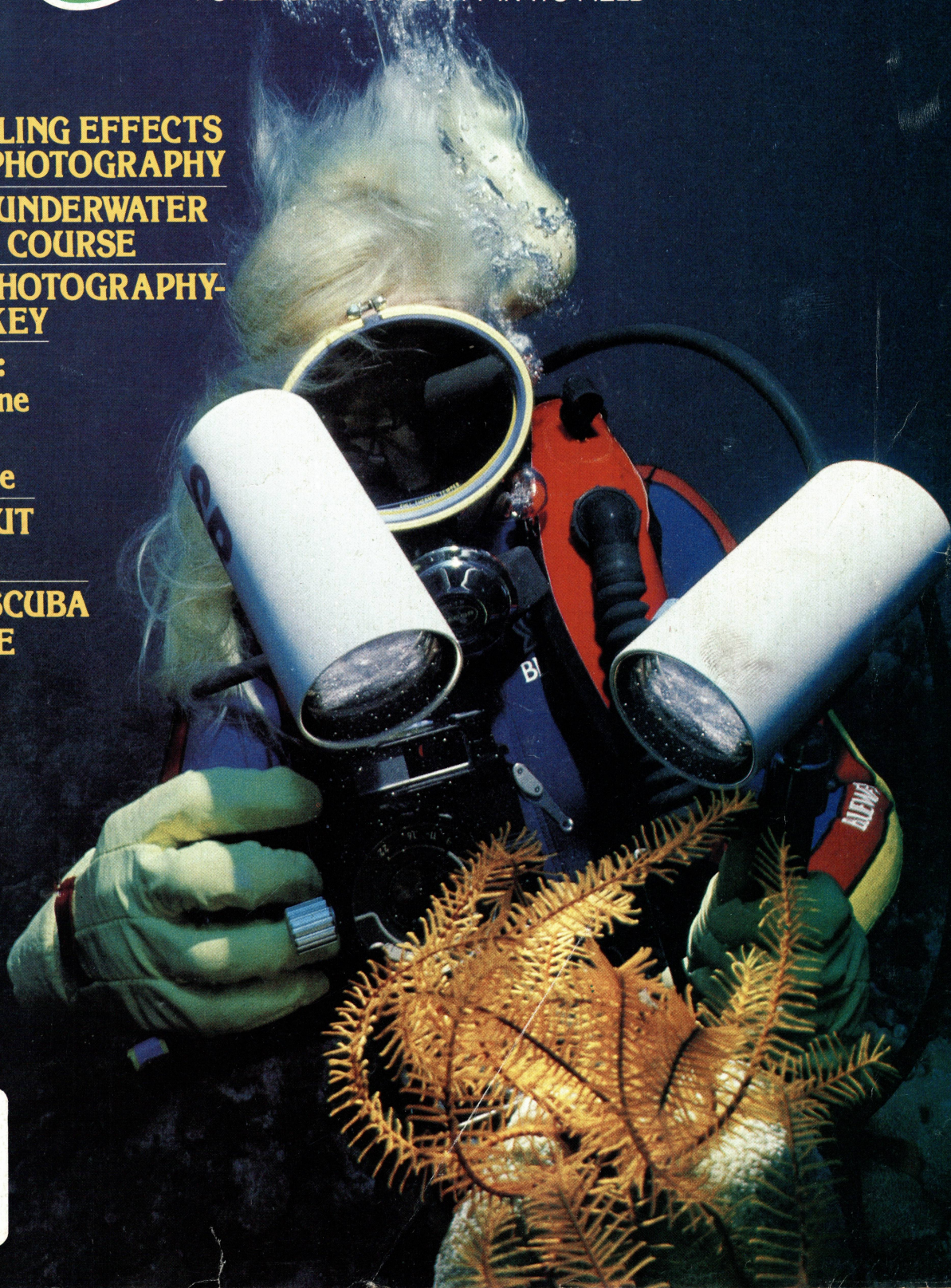
**U/W FASHION PHOTOGRAPHY-
COLOR IS THE KEY**

SDM FOCUS ON:

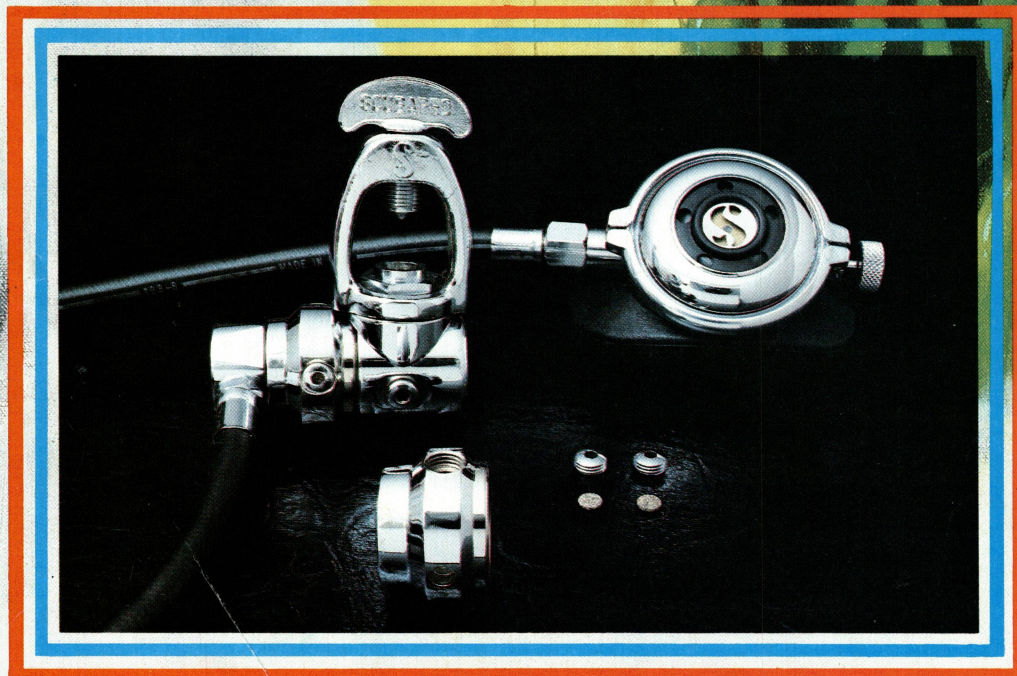
- Pentax 6x7 Marine
- Mamiya M645
- The Light Handle

**SDM CHECKS OUT
32 DIVE LIGHTS**

**DIVE CAYMAN-SCUBA
CAPITAL OF THE
CARIBBEAN**



SCUBAPRO DEFEATS THE ELEMENTS



Introducing the new Environmental Regulators and the Environmental Kits for existing regulators that prevent first stage freeze-up and lock out the smallest particles of sand and sludge. Designed for the first stage of the Scubapro Mark III, Mark V, Mark VII and Mark VIII regulators, the unit uses Scubapro Environmental Silicone and sintered filters to counter any effects of the elements. The Kit includes necessary parts, silicone, and instructions for easy installation. Guard against interferences to your Scubapro regulator. Get the new Scubapro Environmental Regulator or Environmental Kit today. Sold only in selected Dive Stores.

Send \$2.00 for the New Full Color Catalog and Free Wet Suit Decal and Car Decal. Scubapro, Dept. S, 3105 Harcourt, Compton, Calif. 90221

CHALLENGE: Environmental still lifes.

*Exploring another world for
product demonstration
photography.*

When you're challenged to
illustrate dramatically the
features and benefits of

products, consider the
limitless, creative possibilities
of underwater photography.
In this case, Neil Montanus
wanted to show the qualities
of colorful fluorescent paints.
So he created this setting 40
feet down off San Salvador
Island in the Bahamas to
capture the feeling of the
deep. Diving can be learned
easily. The challenge is
selecting the right setting and

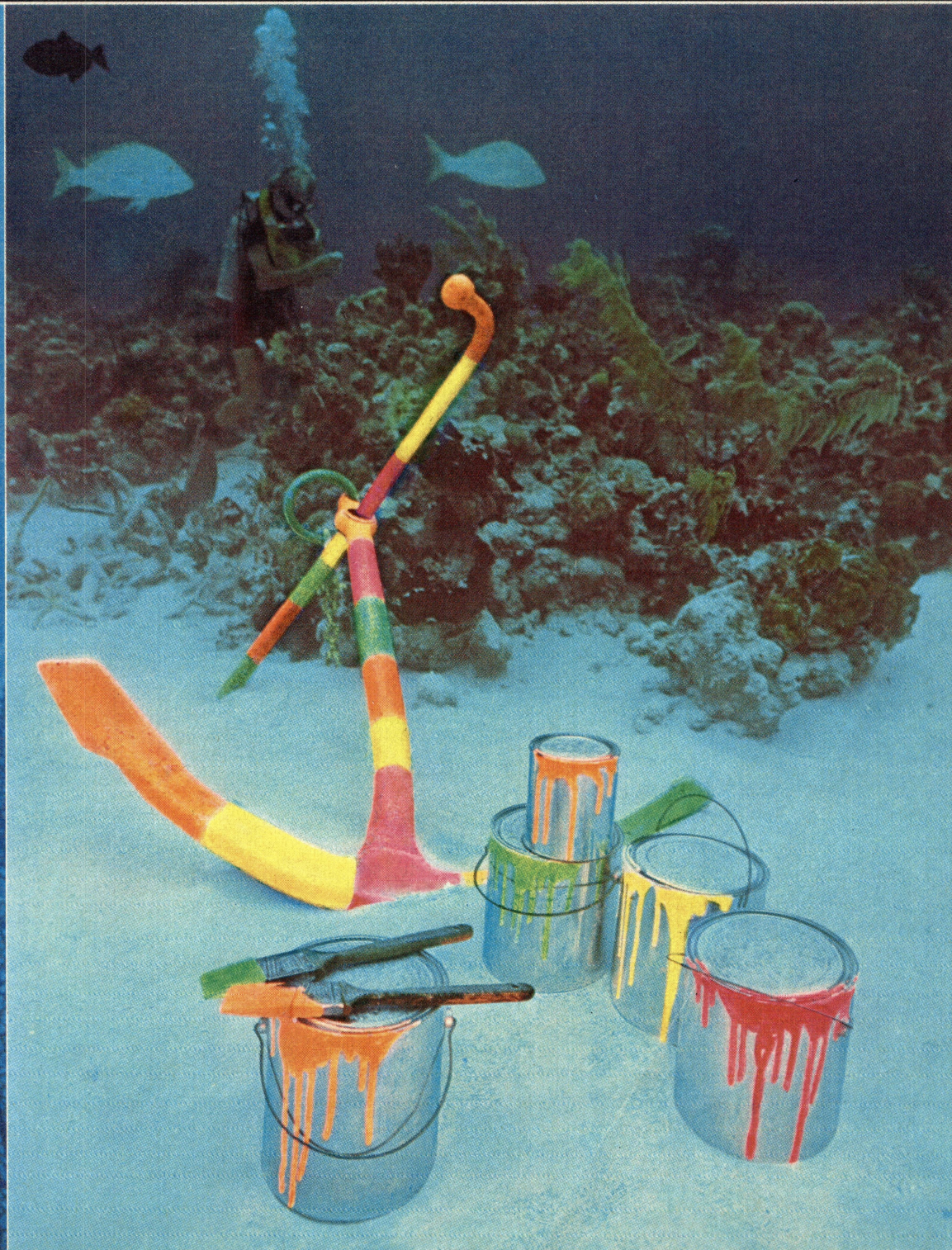
capturing the color. He
brightened the scene with a
3200 K underwater light. The
photograph was taken with a
motorized Nikon F camera
using Kodak Ektachrome 64
professional film (daylight) to
capture as much detail,
clarity, and color as possible.

For more information, write
Eastman Kodak Company,
Department 412L-117S,
Rochester, NY 14650.

Solve your
photographic
challenges with
Kodak products.



© Eastman Kodak Company, 1978



skin diver

Volume Twenty-Eight Number Five

PHOTOGRAPHY

8 WANT BETTER PHOTOGRAPHS? ERICH SCHLADER

Learn from the pros in an U/W photo course

48 CREATIVE STROBE PHOTOGRAPHY JIM AND CATHY CHURCH

Interesting lighting techniques to improve your photographs

DIVE TECHNIQUES

16 BE ONE WITH THE SEA CARLOS EYLES

A deeper look into the Inner Experience of Diving

PHOTOGRAPHIC EQUIPMENT

18 THE MAMIYA M645 BOB KIMPLE

The world's first medium format SLR goes U/W in an Ikelite housing

24 THE LIGHT HANDLE JACK DRAFAHL, JR.

A bright idea makes photography a breeze

32 THE PENTAX 6x7 MARINE SYSTEM PAUL J. TZIMOULIS

SDM tests the Big Daddy of the SLR's

DIVE EQUIPMENT

64 UNDERWATER FASHIONS GERI MURPHY

Make points with U/W photographers by dressing for the part

80 IN THE DARK ABOUT DIVE LIGHTS? GEORGE COZENS

Part II: Light Specifications

FOREIGN TRAVEL

104 CAYMAN — KING OF THE MOUNTAIN PAUL J. TZIMOULIS

A flourishing Caribbean resort packed with action and marvelous moods

DEPARTMENTS

6 U/W FORUM

42 FILM FESTIVALS

52 PHOTO GEAR

14 PHOTO BOOKS

'N SYMPOSIUMS

68 TECHNIFACTS

28 MEDIFACTS

45 SCUBA QUIZ

120 FISH OF THE MONTH

40 SHOWS 'N EVENTS

122 DIVER'S DIRECTORY

STAFF

PAUL TZIMOULIS Editor-Publisher

ART SMITH Art Director

BEVERLY DALBY Associate Editor

ELAINE VAILLANCOURT Ad Service Coordinator

CONNIE JOHNSON Managing Editor

BONNIE J. CARDONE Senior Editor

LESLIE BARROWS Ad Artist

CONTRIBUTING EDITORS

BILL BARADA Environmental Editor

JIM & CATHY CHURCH Photography Editors

CHARLES V. BROWN, M.D. Medical Consultant

ELLSWORTH BOYD East Coast Editor

HILLARY HAUSER Special Features Editor

JACK MCKENNEY Adventure Editor

E. R. CROSS Technifacts Editor

GERI MURPHY Special Assignments Editor

ADVERTISING SALES

LYNN EBRO Atlanta

AL GOMBER Chicago

JIM HALL Los Angeles

BETSY ROYAL New York

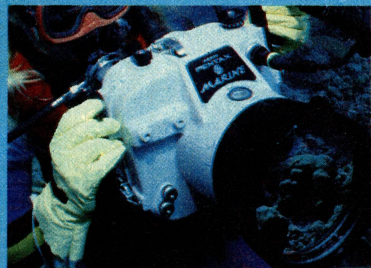
COVER

An U/W photographer uses SR 2000 mini-strobes from Sonic Research and a Nikonos III camera with close-up kit for creative lighting of a colorful crinoid. Photo by Paul J. Tzimoulis.

SKIN DIVER MAGAZINE, (ISSN 0037-6345) © Copyright 1979 by PETERSEN PUBLISHING COMPANY. All rights reserved. Published monthly by Petersen Publishing Company, 8490 Sunset Blvd., Los Angeles, California 90069. Second class postage paid at Los Angeles, California, and at additional mailing offices. Single copy \$1.50. Subscription inquires phone (213) 657-5100. Subscription rates: U.S. Possessions one year \$10.95, two years \$19. All other countries one year \$13.95, two years \$25. CONTRIBUTIONS: Should be mailed to 8490 Sunset Blvd., Los Angeles, California 90069. They must be accompanied by return postage and we assume no responsibility for loss or damage thereto. Any material accepted is subject to such revision as is necessary in our sole discretion to meet the requirements of this publication. Upon acceptance, payment will be made at our current rate, which covers the author's and/or contributors right, title and interest in and to the material mailed including but not limited to photos, drawings, charts, and designs, which shall be considered as text. The act of mailing a manuscript and/or material shall constitute an express warranty by the contributor that the material is original and in no way an infringement upon the rights of others. CHANGE OF ADDRESS: Six weeks notice is required to change a subscriber's address. Please give both old and new address and label. Mail to P.O. Box 3295, Los Angeles, CA 90028. POSTMASTER: Please send form 3579 to Skin Diver Magazine, P.O. Box 3295, Los Angeles, California 90028.



104/Marvelous Moods



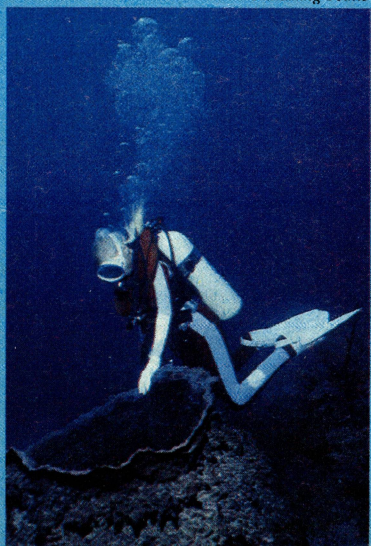
32/Big Daddy



48/Let There Be ...



24/A Bright Idea



64/Making Points

What makes **SUPER Q-LITE** the world's largest selling rechargeable dive light?



It's small — 7 1/4 x 1 7/16 inches! Slim enough to fit in your pocket.

It burns longer — 125 minutes! That's twice as long as other lights in its class, and the brightness remains constant compared to non-rechargeable lights.

It's brighter — 40,000 candlepower now! That's brighter than other lights in its class and sealed beam units using lantern batteries.

It's tough — Nylon, Lexan and stainless steel construction! Many others use weaker less expensive ABS, PVC and brass.

It glows in the dark — The better to find SUPER Q-LITE! That's unique.

It has accessories — There are holders for attaching SUPER Q-LITE to your arm, wrist, belt, camera and strobe. 220VAC and 12V auto charges are also available.

Lanyard sold as an accessory

Underwater Kinetics
7052 Convoy Ct. • San Diego, CA 92111

SDM Editorial

BY THE PUBLISHER



SAVE THAT WRECK!

The Caribbean is facing another conservation crisis and, once again, it is divers who are saving the day. The recent boom of dive tourism, along with the growing popularity of scuba among local islanders, may potentially destroy many shipwrecks throughout the Caribbean. Overwhelmed by sheer numbers, many wrecks are being trampled or picked clean by unknowing and uncaring tourists. In the wake of this destruction comes an even greater threat — the salvage divers, bent on slicing up and carrying away every piece of scrap metal in sight. And the most frustrating aspect of this tragedy is that inexperienced island governments let it happen because they have no conservation laws to protect these wrecks. Fortunately for us, there are divers who care enough to save the wrecks and they are waging a constant battle to protect them. Here are just a few examples of what is happening today:

The British Virgin Islands are probably best known as the home of the *Rhone*, unquestionably the most beautiful shipwreck in the Caribbean. The 310 foot steamer sank in a hurricane in 1867. Her majestic bulk lies on the bottom in 80 feet of water with the entire forward section still intact. The 112 years of submersion have produced an ornate trimming of living corals, large colorful sponges and a myriad of delicate marine organisms. The wreck is a fantasy world of schooling fish and fascinating marine life.

Because of her elegant beauty, the wreck of the *Rhone* has an international reputation and is now visited by thousands of divers and tourists annually. While most divers understand and appreciate the significance of the wreck, there are those inexperienced tourists who would eagerly strip it for souvenirs. Concerned about this possible disaster,

dive guide George Marler approached the local government and asked that the wreck be protected. Apparently his arguments were persuasive, for the government of the B.V.I. has declared the *Rhone* a National Underwater Monument. It is now against the law to remove any artifacts from the wreck or to molest any of the marine life which lives in and around this sunken ship. Today, Marler serves as a volunteer marine warden, overseeing the security of the *Rhone*.

In St. Thomas, divers are not so lucky, a fierce political battle now rages between government bureaucrats and local divers. Apparently, the government issued a contract for a harbor cleanup campaign which included the removal of several old barge hulks from the harbor waterways. Included in this general contract was the salvage of a 185 foot freighter which lies in 45 feet of water. The small ship was abandoned by its crew and sank at its mooring two years ago. It lies perfectly upright on the bottom without any hull damage.

It was Pat Boatwright, a commercial diver surveying the wreck, who first pointed out that the *Certanza Senior* would make a beautiful artificial reef. He also showed that the cost of raising the ship and towing it to another site outside the harbor would be less than cutting it up for scrap. The ideal location for such an artificial reef would be calm water off Little Buck Island. Although the idea seemed logical and economical, the divers met stubborn resistance from Virgin Islands bureaucrats.

The divers in St. Thomas are not giving up easily on this one. Boatwright has won the support of local diving enthusiasts, the newspapers and some of the more intelligent political leaders. It's possible they will be able to save the wreck by creating sufficient public furor and upsetting the mindless plans of the bureaucrats. St. Thomas dive operators and resort hotels are eager to have the *Certanza Senior* resunk in clear, divisible water, as they have no such attraction at this time. Considering the projected life span of the sturdy little steel ship, the wreck could represent \$25 million to the economy of St. Thomas over the next 50 years.

In Barbados, the situation was just the reverse. In November of last year, the government sank a 350 foot steel freighter in 130 feet of water to create a new artificial reef and dive sanctuary. The new wreck was formerly a Greek cargo ship, the *Stavronikita*, which caught fire at sea and whose burnt out hulk was eventually towed to Bridgetown

Harbour. Purchased by the Parks & Beaches Commission at an auction for \$30,000, the huge ship was towed out to a site 1500 yards off the west coast of Barbados for the purpose of making an artificial reef for divers. The sinking was conducted by demolition experts from the U.S. Navy.

The initial idea for converting the crippled freighter into an artificial reef was proposed by Bill Miller, an old-time dive guide and marine biologist who is well-known throughout the Caribbean. Apparently the idea caught the fancy of the prime minister and other top government officials eager to develop dive tourism for Barbados. Now that the ship is well settled on the bottom, it will become part of the new underwater park established by the government.

Artificial reefs are not exactly a new idea to diving. Dick Birch, owner of the Small Hope Bay Diving Lodge, sank his first artificial reef off Andros in 1963. He recruited the rusting remains of a 60 foot World War II LCM which he towed out to sea and sank in 70 feet of water close to the drop-off. Although the wreck is small, it has attracted a whole community of reef fish which now make it their home. There are at least eight or nine good sized Nassau groupers, a dozen large yellowtail snapper, and a crowd of other colorful reef fish which provide endless entertainment for visiting divers. In addition to becoming a popular fish feeding site, this little wreck has proved an ideal setting for a multitude of underwater movies and prize-winning photographs.

It has become clearly evident that shipwrecks are much more than underwater graves. Wrecks can become living reefs covered with colorful sponges, hard corals, soft gorgonians and hundreds of other marine life forms. Wrecks can also become homes for fish. After as little as one year of submersion, they frequently turn into apartment houses filled with snappers, groupers, and dozens of other species.

Most of all, shipwrecks represent a great value as a natural resource. They are worth millions of tourist dollars to the economy of these developing island nations. The wrecks serve as underwater playgrounds for divers and a strong attraction for visitors.

If you know of a shipwreck worth saving, tell us about it. Write SKIN DIVER and tell us about the shipwreck you would like to see saved. Perhaps we can help by forwarding your report to the right people in government. If a wreck is worth saving, divers can do it. 

Off the shelf or custom. Either way you win.

You already know Sea Suits makes a very good wet suit. You may not know we make an even better wet suit. A custom made Sea Suit. There's only one reason for making it—You! • If you're wondering which to buy, here are two reasons for getting an off the shelf Sea Suit. ★ It's the easiest way to get an exceptional suit. ★ You'll be getting the very best for your money. • And here are two reasons for getting one of our custom made suits. ★ You'll have the best we have to offer. ★ You'll have the best of the very best. • There's another reason for getting any Sea Suit. ★ You'll never look or feel better. • Custom or off the shelf, either way you win. We know quality satisfies...it always has.



SEA SUITS

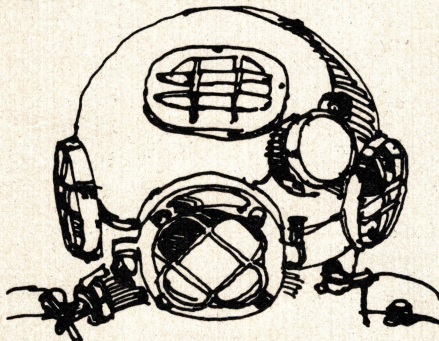
837 W. 18th St., Box 245,
Costa Mesa, CA 92627
(714) 642-1912
Dealer inquiries invited



sea suits

QUALITY SATISFIES

you can be a deep sea diver.



adventure/high income world travel/challenge

An exciting and lucrative career is waiting for you in commercial deep sea diving. At our facility in Houston you'll train in all phases of commercial diving. We have day and night classes and we are approved for veteran training. Upon graduation, we'll assist with job placement. To learn more about this career with a future, call our Registrar's office or mail the attached coupon today.

Tell me more about a career in commercial diving. 1. Send me free "WHY BE A PROFESSIONAL DIVER" 2. Enclosed is my \$2.00 for your more detailed catalog.

Name _____

Address _____

City _____ State _____ Zip _____

Phone No. _____ Age _____

The Ocean Corporation

Commercial Diver Training Division

5709 Glenmont, Dept. S (713) 661-0033 Houston Texas 77081 — Call collect, or after business hours call our toll-free number of 1/800/327-0173 ex. 570 (in Florida call 1/800/432-0151 ex. 570).

Underwater Forum

Alpha Flag Correction

Several sentences describing the Alpha flag were inadvertently omitted from the March SDM story on the Divers Flag. The missing sentences would have been the last ones on page 21. Here is what the article should have said: "However, in international waters and in some other countries there is another flag used. This is the Alpha flag, a blue K with a broad white border on the back of the K. It means, 'I have a diver down, keep well clear at slow speed.' This is the flag flown by our Coast Guard when a diver is down and has been adopted by CMAS. It is to be flown whenever divers are in the water 12 miles from U.S. owned land."

Since the article was published, both the U/W Society of America and the U.S. Coast Guard have written to us about that last sentence. The Alpha flag is to be flown in "International Waters," the boundary lines for which were changed in 1977 and now, in many instances, follow our coastal shorelines. Thus, in almost every case, the Alpha flag must be flown by boats when they have divers down in the ocean.

The exact Demarcation Lines are published in CG-169-1. CG-169 contains International and Inland Navigation Rules. Both pamphlets are available free from: Commandant (G-CMA-3/74), U.S. Coast Guard, Washington, D.C. 20590.

Some Like It Cool

In the February 1979 issue of SKIN DIVER Magazine, in Underwater Forum, a letter appeared on thermal Pollution written by Joseph W. Hagen of La Canada, California. Coastal nuclear power plants that use sea water for cooling, created this kind of pollution, raising the water temperature eight to ten degrees. Hagen states that this temperature increase causes the sea life surrounding the power plants to thrive.

I happen to live right next to a power plant in Massachusetts, and believe me, such thermal discharge does *not* make the sea life thrive, but instead decreases the amount of desirable sea life in the area. For example, when lobsters living in the cold, frigid waters of New England are faced with warmer temperatures, they leave the area and head for colder waters, while less desirable sea life such as sharks come into the warmer waters discharged from the plant.

Thermal pollution, like any pollution, alters the natural state of the environment, which affects the life within it. If the waters

off the coast of California were meant to be warm, then God would have made them that way.

JAMES A. ALBANI
PLYMOUTH, MA.

S.O.S.

I am a scuba diver and resident of North Carolina. A large group of my contemporaries and myself have a serious problem and we request your help.

During World War II a German Submarine, U-352, was sunk approximately 30 miles off the North Carolina coast. It lay undisturbed in 110 feet of water until approximately six years ago. Its location was discovered and, since then, it has been a site of awe and wonderment for North Carolina divers and those divers journeying to North Carolina to savor it. It is abundant with all forms of marine life and is one of the few shipwrecks anywhere that is completely intact . . .

However, last summer a commercial salvor took a United States Senator to the wreck to obtain Federal aid in disarming the submarine. It had, until now, been a German memorial and off limits to any salvage operations.

Due to interest of the salvor and the Senator, the U.S. Navy has received permission from the German government to do whatever is necessary to disarm the submarine, thus "making it safer" for U.S. citizens, so they say. It also leaves it open to salvaging and would reap the salvor great benefits. The pretense of diver safety is irrelevant since 90 percent of the Mid-Atlantic dive sites are World War I and World War II vessels. All with live munitions on them.

The divers of North Carolina do not want a beautiful dive site and fish sanctuary blown up in the name of safety for a salvor's profit. We do not want it blown up for any reason. There is a great probability that there is a large amount of fuel still on the vessel, which would result in a disastrous spill, let alone the loss of fish due to the explosion and the subsequent death of the whole chain of marine life.

We have contacted our local representatives. However, our efforts so far have had little results. We are now in the process of trying to get the EPA to require an Environmental Impact Study before they destroy the wreck. We feel certain that such a study, showing the results of the demolition of this wreck, will prevent it ever being blown up.

(Continued on Page 11)

A full-page photograph of a male diver in a red wetsuit, black mask, and snorkel. He is holding a Nikonos III camera in his right hand, pointing it towards the viewer. He is positioned next to a wooden structure, possibly part of a boat or a diving platform, with a blue background suggesting an underwater or pool environment.

This is the camera that's designed to make underwater photography as uncomplicated and successful as you want it to be. The only fine "35" that can go down to depths of 160 feet without a housing. So you don't waste time fitting pieces together and double-checking that everything is tight. You simply grab your Nikonos III and jump in. And, if you see a great picture topside or ashore, the camera is ready for it as quickly as you are—again with no special preparation and no needless bulk.

Of course, there's more to the Nikonos III than its constant picture-readiness and fast, easy operation. There's the magnificent quality of its famous Nikkor lens that helps you bring back the wonderful world below in stunningly sharp, colorfully life-like photographs. Moreover, you have a choice of four interchangeable Nikkor lenses, along with precision accessories designed to make your Nikonos photography even more enjoyable, both in and out of water.

See and try the unique Nikonos III, at Nikon camera dealers and selected dive shops. Or, write to Nikon Inc., Dept. N-24, Garden City, New York 11530. Subsidiary of Ehrenreich Photo-Optical Industries, Inc. In Canada: Nikon Division, Anglophoto Ltd., P.Q.

Nikonos III from Nikon

**Nikonos III.
No bulk, no housing,
no fuss or bother.
Just great photography**



“As long as Kodak keeps making Instamatics and Ikelite keeps putting them in cases, who needs to go to an underwater photography school?” Fred asked me. Perhaps I should have pointed out to him that for the 32nd consecutive month some other underwater photographer had shot the cover of *SKIN DIVER*.

If Fred would only listen he'd find the case for attending an underwater photo course is a strong one. Most divers who are into photography could greatly benefit from a week of study at one of the many photographic seminars offered today. After a few days, students gain years of knowledge and, with a little bit of skill, start producing good photographs. Let's look at some of the reasons why a good photo school could be right for you.

Today the better schools are run by professional underwater photographers who have spent years traveling the world learning their trade. Chances are, when

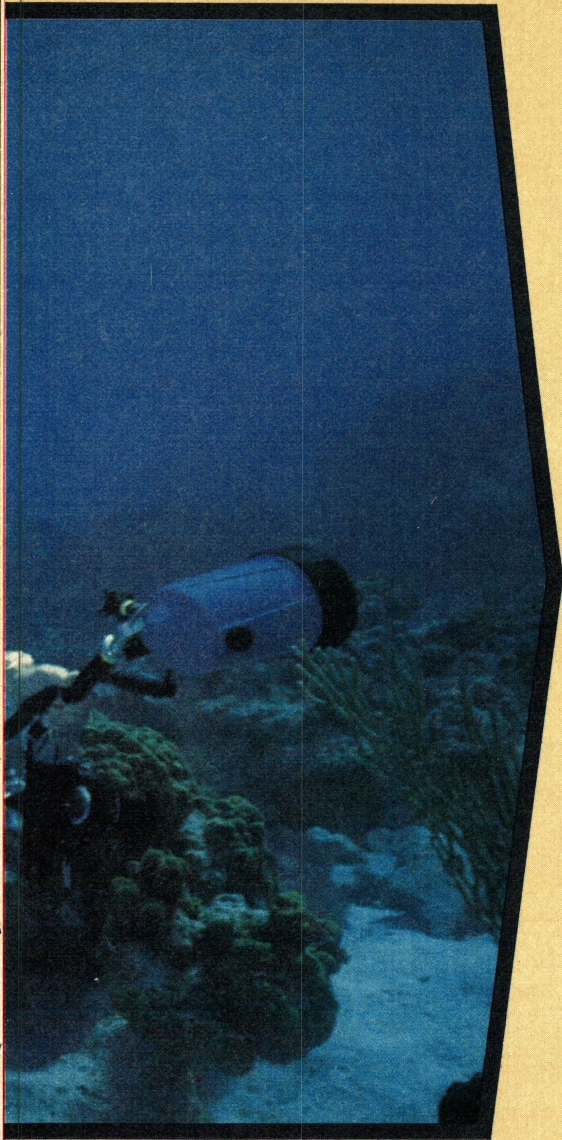
it comes time for one of these to teach a course it will be at some super resort. The photographer's experience, plus the location, generally add up to a great diving vacation. Your class will probably have its own boat and divemaster, and that means diving the best possible sites for photography without worrying about such things as weightbelts being dropped on expensive cameras or 21mm lenses being set on their plastic dome ports.

Photo courses also provide immediate feedback to the student. Many offer on-the-spot processing and expert analysis of the student's work. The student knows the result of photo sessions the same day. The beginning underwater photographer retains his/her successes and corrects his/her faults daily. No longer is it necessary to face the frustration other divers feel between trips when they get home and find that their pictures are not quite what they expected. The tips presented in a lesson or

a pre-dive briefing are based on professional knowledge that is difficult to learn by trial and error. And, no matter how well written a textbook is, it can't answer every question a student may have.

Schools are well stocked with a whole assortment of photo gear, which is loaned to students for use during class. A student need not invest several hundred dollars in a piece of equipment only to find out later that it won't do what he or she wants it to or that the same thing could be done better by another product. The student also learns how to maintain this equipment.

Typically, an average school runs for a week or less. Enrollment is limited to a small group of students. Each provides his or her own Nikonos camera and brings whatever other photo equipment he or she may own. Costs vary, but generally fall into the \$600 to \$800 range and are inclusive of tuition, diving, lodging, food and sometimes transportation from a Florida gateway city. Days at the school



WANT BETTER PHOTOGRAPHS?

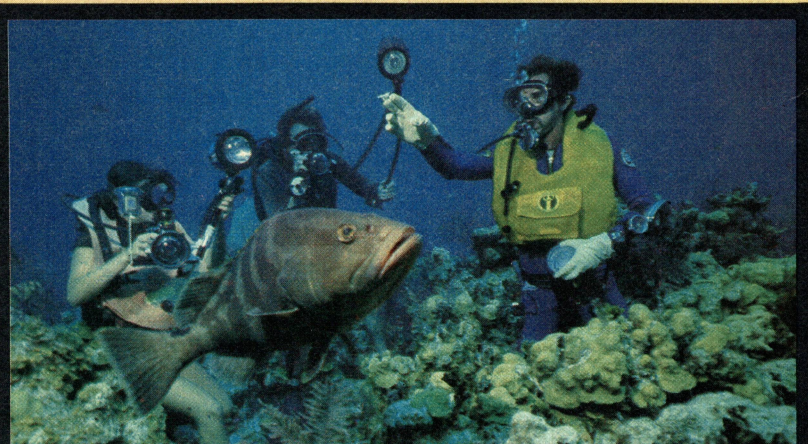
Enroll In An U/W Photo Course

By Eric Schlader

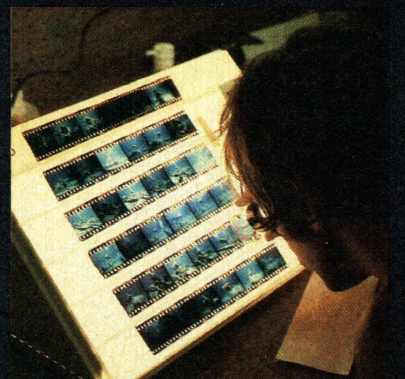
are jammed with photo dives, lectures, film critiques, equipment maintenance and the various necessities of daily life.

There are several photo courses. Consider those offered at San Salvador Island, Bahamas; Freeport, Grand Bahama; Grand Cayman; Bonaire; British Virgin Islands; or U.S. Virgin Islands. Advertisements for these and other fine courses can be found on the pages of this magazine. Any of the resorts or schools would be happy to provide details on their programs on request.

Perhaps it may appear that the points in favor of attending an underwater photo seminar are being overstated. But, it's as clear as the waters of the Caribbean — photo schools work. At the very least, attending one is a pleasurable dive vacation. One that almost invariably produces delightful photographic results. One that avoids the pitfalls of trying to learn photography any other way and helps save the student the course cost many times over. >>>



Eric and Carol Schlader (above left) enrolled in an U/W photography course. Dive-master Chris McLaughlin (above) feeds a grouper while students shoot pictures.

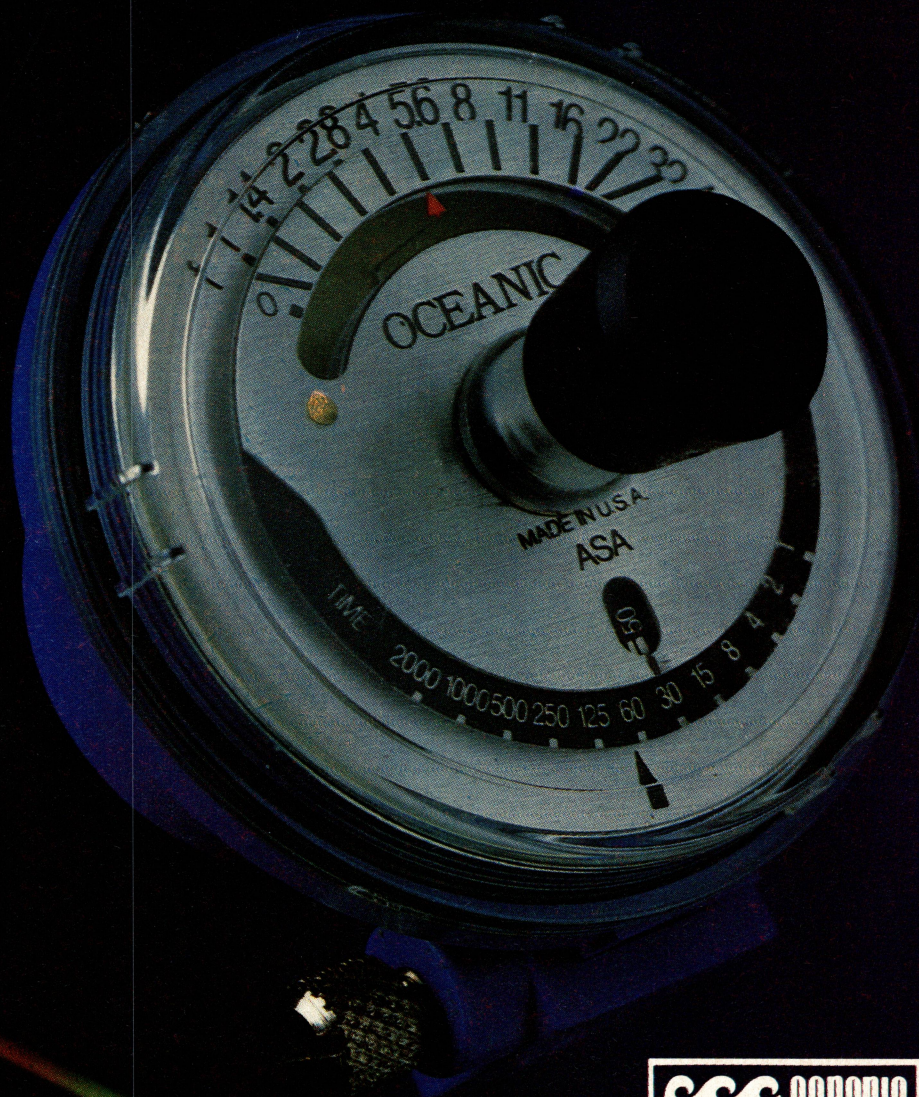


U/W photo course students are able to view their results the same day (left). Dive-master Al Zamrok (right) assists students in Nikonos care and maintenance.

photography by Paul Tzimoulis and Geri Murphy

LIGHT

COMES IN MANY FORMS



UNDERWATER FORUM

(Continued from Page 6)

We would appreciate any help or support.

DEBORA BOYCE
Eastern Carolina Dive Club
602 East 9th Street, Apt. A
Greenville, NC 27834

Drilling The Great Reef

I have just read your October, 1978 issue and have found it one of the best dive magazines I have read. I was particularly impressed by the message from Captain Cousteau and I fully support his dedication to the saving of our oceans. It is to this end that I write to advise you that the Australian government is considering drilling for oil on the Great Barrier Reef — some 2000 miles of beautiful coral formations and possibly the eighth wonder of the world.

Right now I am trying to mobilize the defense of this beautiful area and I hope that anybody who reads SKIN DIVER, no matter where in the world, will contact the Australian Consul to tell them how the Australian government will lose a lot of friends by destroying the natural habitat of millions of wonderful and unique sea creatures.

Let all true divers unite in protecting

this last frontier from the rapacious exploitation that could be possibly enacted.

DONALD BROADHURST
S. COOGEE, NSW, AUSTRALIA

Fish Sanctuaries

Thanks for the January, 1979 article, A Place For Spearfishing by Bill Barada. Looe Key is my favorite dive spot in the Florida Keys and it should be protected. I spearfish, but never in those pretty areas, which should be reserved for photographers and sight-seers.

However, the banning of all spearfishing in the keys would not be the answer. I'm sure further regulations will come. But, if they are objectively written, they will benefit all concerned. I would never oppose regulations designed to protect specific sanctuaries that would allow fish to settle down for the enjoyment of photographers.

BART BLANKENSHIP
PALMETTO, FL

C-card Discrimination

Since last summer in Key West I have been trying to determine why my U.S. Navy diver certification card was not acceptable for purchasing air. The shop operators had no explanation other than, "It's not a recognized card." I have discussed this with many of my friends and find it is a common problem.

Mr. William L. High, past president of

NAUI, was contacted and said he could not imagine anyone not accepting an official Navy diving card. Mr. Dennis Graver, PADI Training Director, was contacted and said there had been numerous individuals contacting him with the identical problem. He suggested taking a test for a PADI "Experienced Diver" certification; however, he did not say why Navy certification is not acceptable.

If there is an established policy among any of the civilian training organizations regarding the acceptance of Navy certification, such policy should be presented to appropriate Naval officials along with the reason and, possibly, a means of working out a solution. As one of several thousand individuals holding a Navy diver certification card, I sincerely hope some solution can be found and that the excellent rapport between all divers and diving organizations continues.

W. T. JENKINS
PANAMA CITY BEACH, FL

An Accurate Accounting

The following letter was received by Bill Barada, SDM's Environmental Editor: [Regarding] your article in the January, 1979 SKIN DIVER on the great spearfishing controversy . . . It is the most complete and accurate accounting of the situation that I have ever read and should be required reading for all opponents and proponents. The article covered all

(Continued on Page 20)

SEA SCRUBBER®

UNDERWATER HYDRAULIC ROTARY BRUSH HULL CLEANING SYSTEM

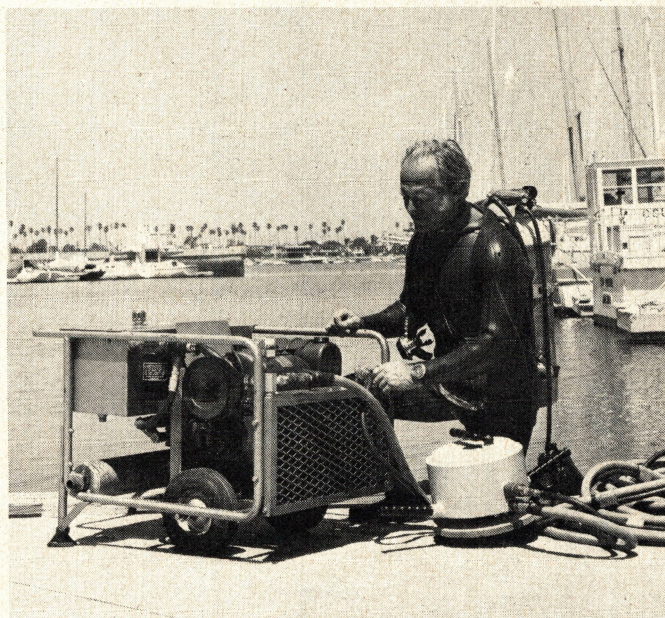
Diving's great . . . why not make it profitable? Easy to operate, fast and efficient, the Sea Scrubber is the professional underwater brushing system, capable of restoring a ship's hull to its original finish . . . without damaging the paint. The **Sea Scrubber** is one of the U.S. Phosmarine systems currently used by the Navy, fishing fleets and pleasure boats around the world. It is also ideal for cleaning commercial swimming pools.

For larger ships, such as tankers and container vessels, we recommend our **Brush Sub System**, which is unequalled in performance. With the U.S. Phosmarine underwater hydraulic systems, the potential for profit is unlimited.

For complete details and catalog, send \$2.00 to:

U.S. PHOSMARINE

3186 Airway #F, Costa Mesa, CA 92626
(714) 540-9455 Telex 678 401

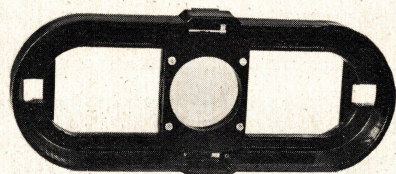


THE UNDERWATER

FINDER
OPTIONAL



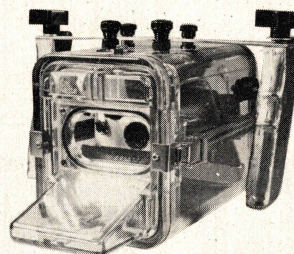
TrimCASE



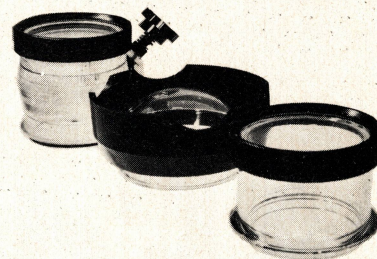
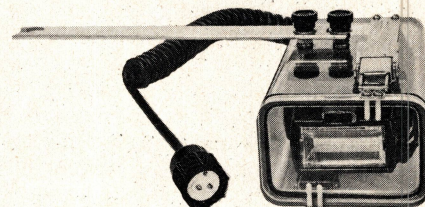
Close-Up Accessory



Polaroid SX-70 CASE



**Electronic
Flash CASE**



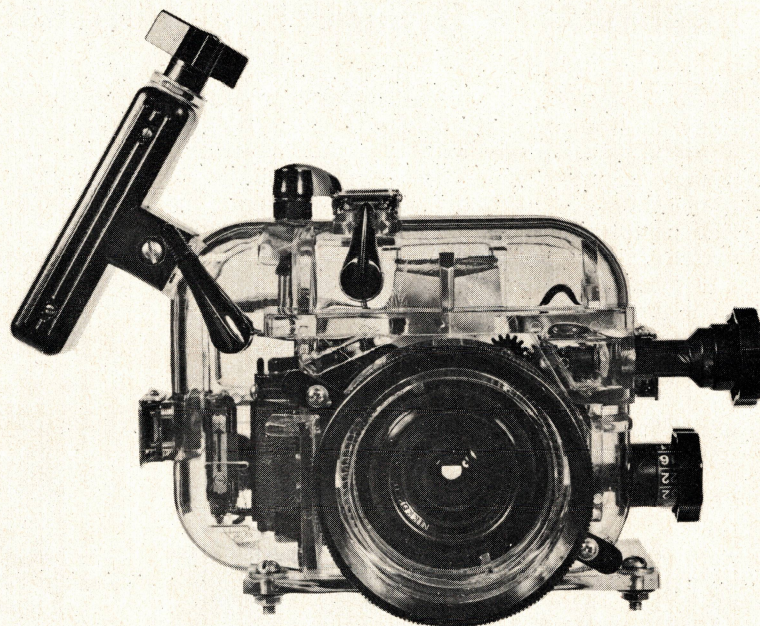
SLR & SLR-MD Ports



FINDER
OPTIONAL

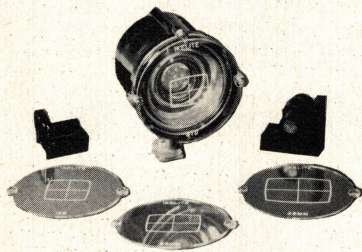


Rangefinder CASE



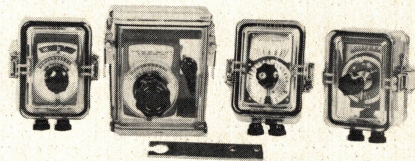
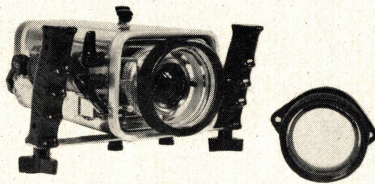
SLR CASE

SE FOR PHOTOGRAPHY



Optical Viewfinder

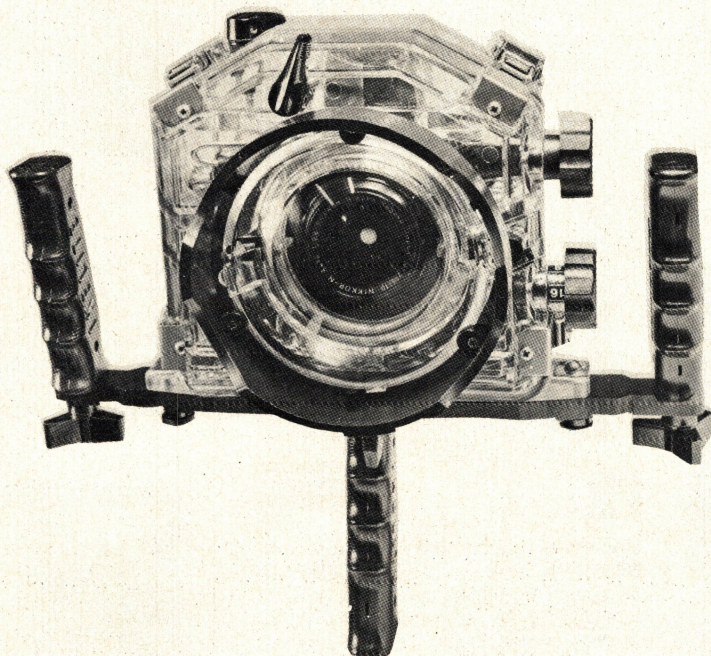
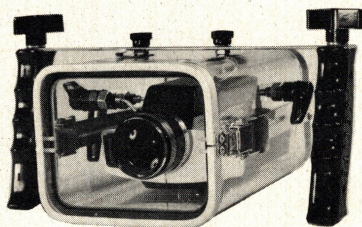
Hasselblad CASE



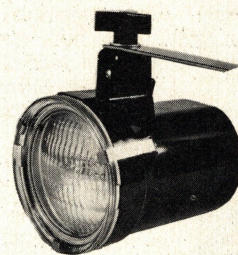
Lite Meter CASE



Movie CASE



SLR-MD CASE

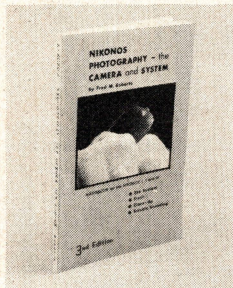


Movie Lite

ikelite

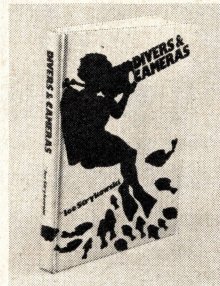
UNDERWATER SYSTEMS
3303 North Illinois Street
Indianapolis, Indiana 46208
SEND \$1.00 FOR '79' CATALOG

SDM Guide to PHOTO BOOKS



1.

Nikonos Photography — The Camera and System — By Fred M. Roberts. A handbook for the Nikonos I, II, and III cameras. This new edition includes 98 tables and 18 illustrations. 161 pages, 8 in color. \$5.50. From fmRoberts Ent., P.O. Box 608, Dana Point, California 92629.

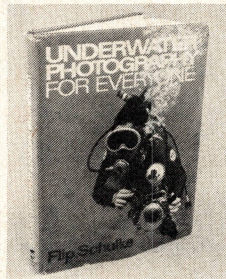


2.

Divers & Cameras — By Joe Strykowski. A complete textbook by a veteran diver/instructor which serves as an ideal guide for both novices and professionals. It also covers composition and movie-making. 212 pages. \$6.95. From Dacor Corporation, and available at your local dive shop.

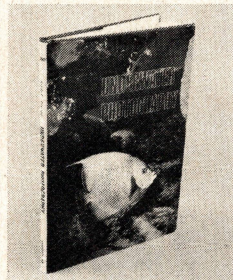
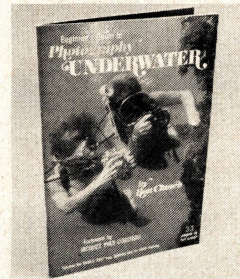
3.

Underwater Photography for Everyone — By Flip Schulke. Covers the vital techniques for using all types of camera equipment — from inexpensive set-ups to the most sophisticated systems. 220 pages, 28 in color. \$14.95. From Prentice Hall, Englewood Cliffs, New Jersey 07632.



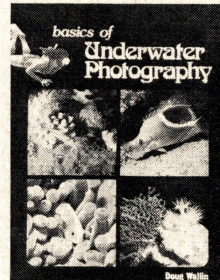
4.

Beginners Guide to Underwater Photography — By Ron Church. Provides comprehensive information on lighting, film, subjects and techniques with numerous illustrations and photos. 64 pages, 33 in color. \$4.95. From Seacor, Inc., P.O. Box 22128, San Diego, California 92212.



5.

Underwater Photography — By Dimitri Rebikoff and Paul Cherney. A historical and technical approach by two pioneers in the field of U/W photography. It gives the current state-of-the-art. 143 pages, 8 in color. \$8.95. From Amphoto, Eastgate and Zeckendorf Bl., Garden City, NY 11530.

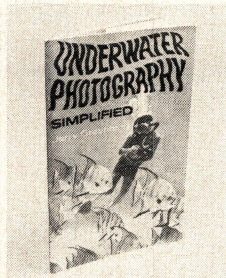


6.

Basics of U/W Photography — By Doug Wallin. A step-by-step guide through the complexities of underwater photography. Written in clear, easy to read language. 128 pages, 8 in color. \$5.95. From Amphoto, Eastgate and Zeckendorf Blvd., Garden City, New York 11530.

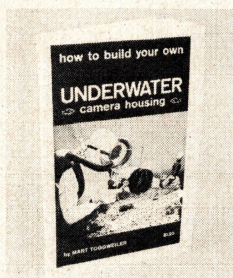
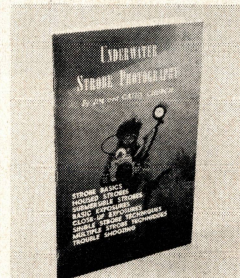
7.

Underwater Photography Simplified — By Jerry Greenberg. A popular guide written in simple, easy-to-understand language. It includes all the necessary basics. 48 pages. \$2.50. From Seahawk Press, 6840 S.W. 92nd Street, Miami, FL. Available at your local dive shop.



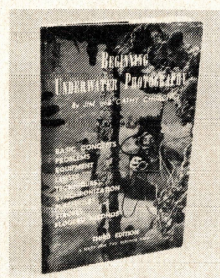
8.

Underwater Strobe Photography — By Jim and Cathy Church. A book devoted entirely to the equipment and techniques of using electronic flash underwater. For beginners and advanced photographers. 64 pages, 4 in color. \$4.95. From Jim and Cathy Church, Box 80, Gilroy, CA 95020.



9.

How to Build Your Own Underwater Camera Housing — By Mart Toggweiler. A comprehensive manual with photos, drawings, and detailed instructions on how to make a functional, plexiglass housing. 72 pages. \$1.95. From Hydrotech, P.O. Box 14444, Long Beach, CA.

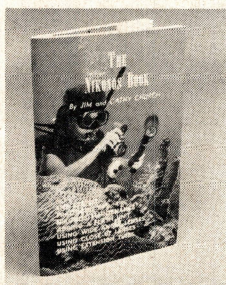


10.

Beginning Underwater Photography — By Jim and Cathy Church. An updated, third edition which covers the Nikonos III and other new equipment. A perfect starter for beginners. 56 pages, 7 in color. \$3.95. From Jim & Cathy Church, Box 80, Gilroy, CA. 95020. Also at your dive shop.

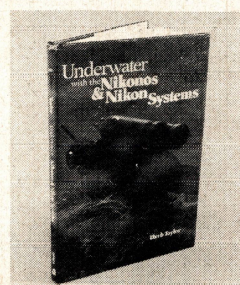
11.

The Nikonos Book — By Jim and Cathy Church. Designed to help underwater photographers learn to use the Nikonos system as quickly and as easily as possible. 96 pages, 2 in color. \$4.95. From Jim and Cathy Church, P.O. Box 80, Gilroy, CA. Also at your local dive shop.



12.

Underwater with the Nikonos and Nikon Systems — By Herb Taylor. An excellent introductory text on the Nikonos family of underwater cameras with numerous photos, illustrations. 160 pages, 12 in color. \$9.95. Amphoto, East Gate & Zeckendorf Bl., Garden City, NY 11530.





Of all hostile environments, the sea is perhaps the most forbidding. Both camera and photographer must go under with everything they need for survival. But aside from safety considerations, the special requirements of marine photography put a great burden on any camera.

Chris Newbert's specialty is the photography of underwater marine life, and for this he chose the F-1 as his exclusive system.

"Mechanically," he says, "the F-1 is the epitome of equipment designed for use underwater, with a ruggedness and smoothness of operation that's essential for this type of work. My first F-1 was completely flooded with salt water. This almost certainly destroys a camera completely within a short time. After a thorough rinsing in fresh water and subsequent drying out, it functioned for months until the housing manufacturer replaced it—a very rare and nearly impossible performance!"

Chris leans heavily towards the Canon Super Wide Angle lenses for startlingly dramatic close-ups and towards the Canon Macro lenses (FD 50mm f3.5 SSC Macro and FD 100mm f4 SC Macro) for their exceptional flexibility in focusing range underwater, where changing lenses is out of the question.

For the photograph of the jellyfish reproduced here, Chris used the FD 50mm f3.5 SSC Macro with electronic flash for fill. "The incredibly sharp Canon Macro lenses are invaluable under water, where I can photograph a 1" long sea slug at one moment and a 12' manta ray at the next with a simple twist of the focusing ring. But of course, the most innovative thing about the F-1 is that

Chris Newbert and the Canon F-1

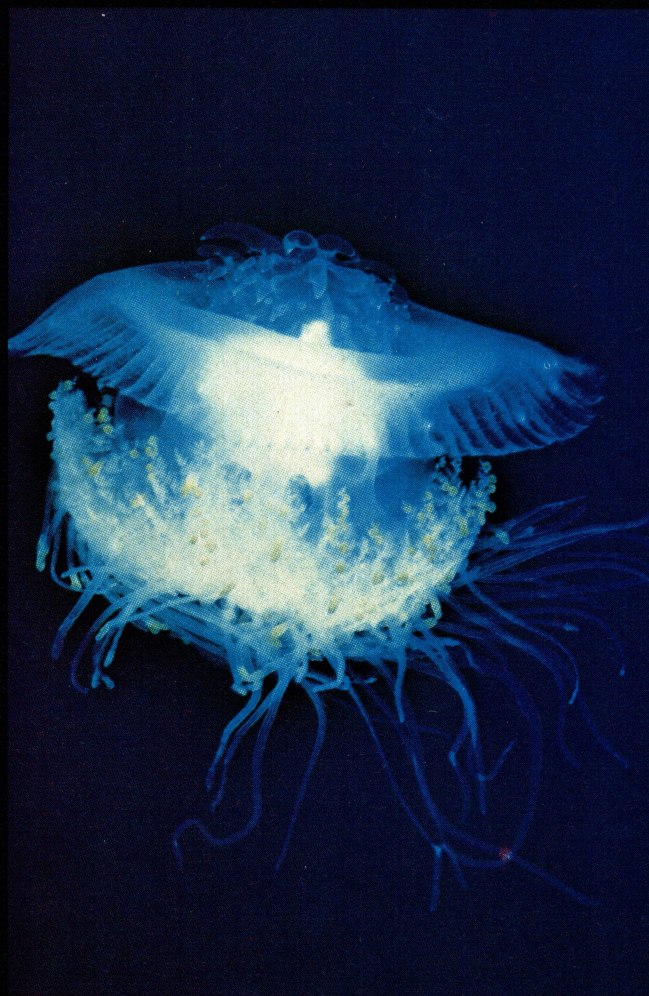


Photo taken with Canon F-1 and FD 50mm f3.5 SSC Macro lens. 1/60 sec. at f11, ASA 25

'The F-1 helps me bring marine life to life'

Canon® F-1

you can use the Speed Finder in an underwater housing and *still* make full use of the camera's built-in metering system. It's *great*."

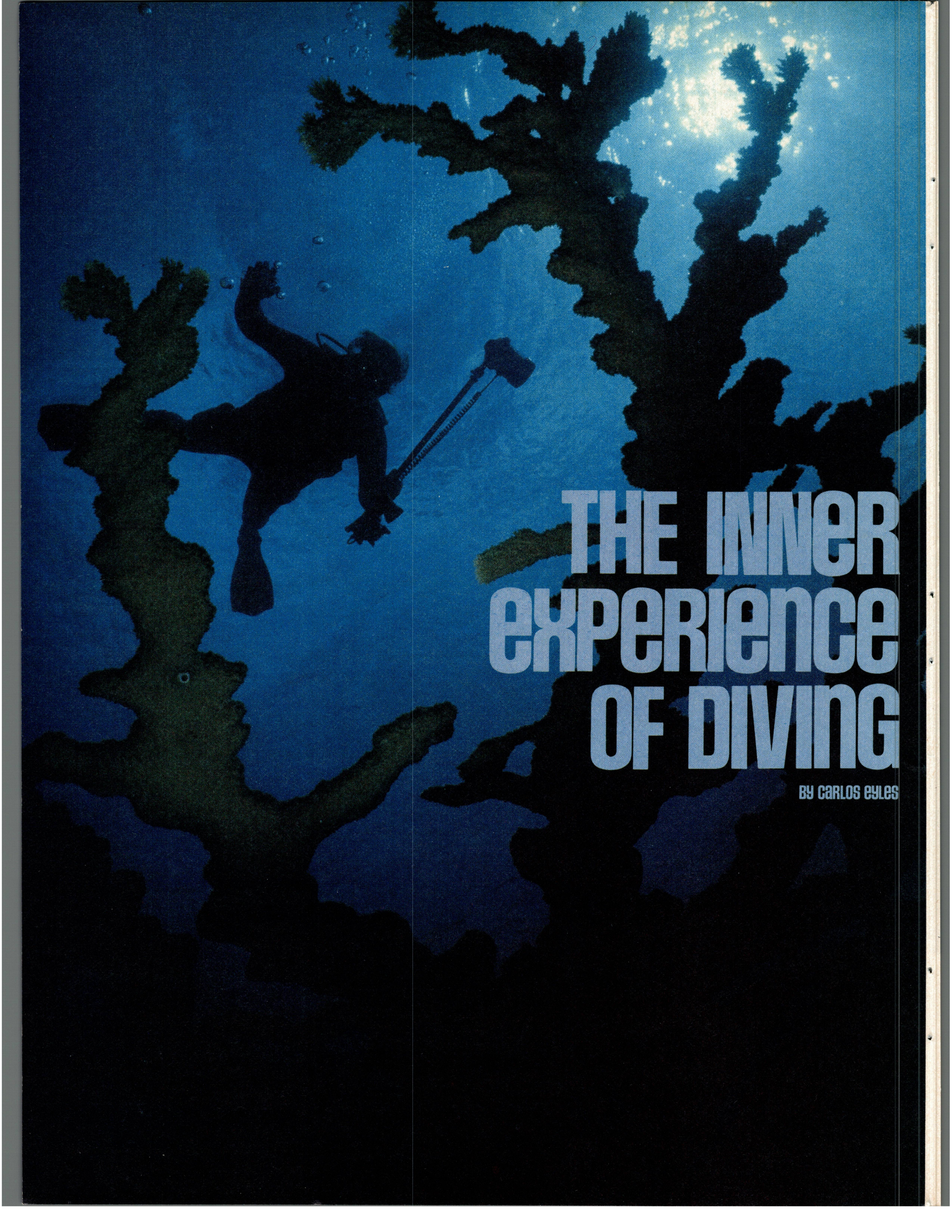
The Canon F-1 system has fast become the system of choice for underwater photographers because of its handling and especially because of its unique Speed Finder, that not only permits metering but (above the surface) rotates 180° for eye- or chest-level viewing. It's the perfect accessory for underwater use, aerial photography or any photography where the eye can't come into direct contact with the Standard Finder. It's one of the five available interchangeable viewfinders for the F-1, each with a uniquely Canon approach to system quality and all but one using the F-1's built-in metering system.

Newbert's home base is on the island of Hawaii, from which he travels frequently for marine assignments all over the Pacific. His work has been published widely and exhibited in numerous photographic galleries, as well as being in demand by clients in need of superior color photography of underwater fauna.

Like many photographers, Chris Newbert has found that only the Canon F-1 system could fulfill his specific needs. If you're in the market for an SLR system that's built for *your* needs, you're in the market for the F-1 system.

- Construction to professional standards insures years of dependable use and smooth operation
- Central area spot metering reads only the center 12% of the finder for unmatched accuracy and selectivity
- Interchangeable viewing systems and eyepiece accessories give the utmost in viewing flexibility
- Motorized options for any action situation
- Nearly 40 Canon lenses for outstanding optical quality and versatility
- More than 200 accessories for unlimited photographic applications



An underwater photograph featuring a diver in silhouette, holding a large video camera on a long pole. The diver is positioned in the upper left quadrant, swimming towards the right. The background is a deep blue, with large, dark, branching coral structures framing the scene. Sunlight filters down from the top right, creating a bright, hazy area. Bubbles are visible around the diver's head.

THE INNER EXPERIENCE OF DIVING

BY CARLOS EYLES

Be one WITH THE sea

PHOTOGRAPHY BY GERI MURPHY

To be able to function effectively underwater requires a clear head, a relaxed body and an attitude of oneness with the sea. These ingredients are essential for a diver to fully enjoy the complete underwater experience.

I believe diving is not a physical experience in the sense of other sports, but is first an internal experience, involving the mind and the body. A diver's head needs to be free of his misconceptions of the ocean, for they prevent him from clearly perceiving the underwater environment as it is. If he doesn't perceive the ocean clearly then he won't understand it, and if he can't understand it, he won't be able to function effectively in it. So instead

of preparing yourself physically as you would for other sports, you need first to prepare yourself *inwardly* for diving. Only in that way will you be able to replace your beliefs and misconceptions of the ocean with the physical reality of it. *Your most important piece of dive equipment is a free and clear head.*

Our planet's underwater world, as you know, is very different from our earth world. But, the differences between the two worlds are just that

and nothing more. One world is not safer or more dangerous than the other. However, as new divers bring their beliefs into the water with them, these differences take on much more significance.

One of these differences, the one which seems to really get in the way of a beginner's ability to enjoy the ocean, is the limited visibility. We have come to rely on our eyesight almost exclusively to perceive the world around us. This dependency works against us as we begin to dive. When the diver's ability to see at any distance underwater is severely reduced, he feels vulnerable. His belief systems are activated and he begins to imagine all sorts of threats lying just outside his range of visibility. This, coupled with the knowledge that he cannot outswim that potential threat, creates anxiety. Your awareness of how visibility activates your belief system can make the difference between an enjoyable dive and a nightmare.

When you start to feel uneasy in the water because the visibility isn't what you would like it to be, just remember where that uneasiness is coming from. You can't change the visibility underwater, but you can change the way it affects you.

Always try to dive in the clearest water you can find. Once in the water accept whatever the visual limitations are and enjoy your dive. If you find yourself reacting to your imagination, try redirecting your attention from these imagined threats back to the real world around you.

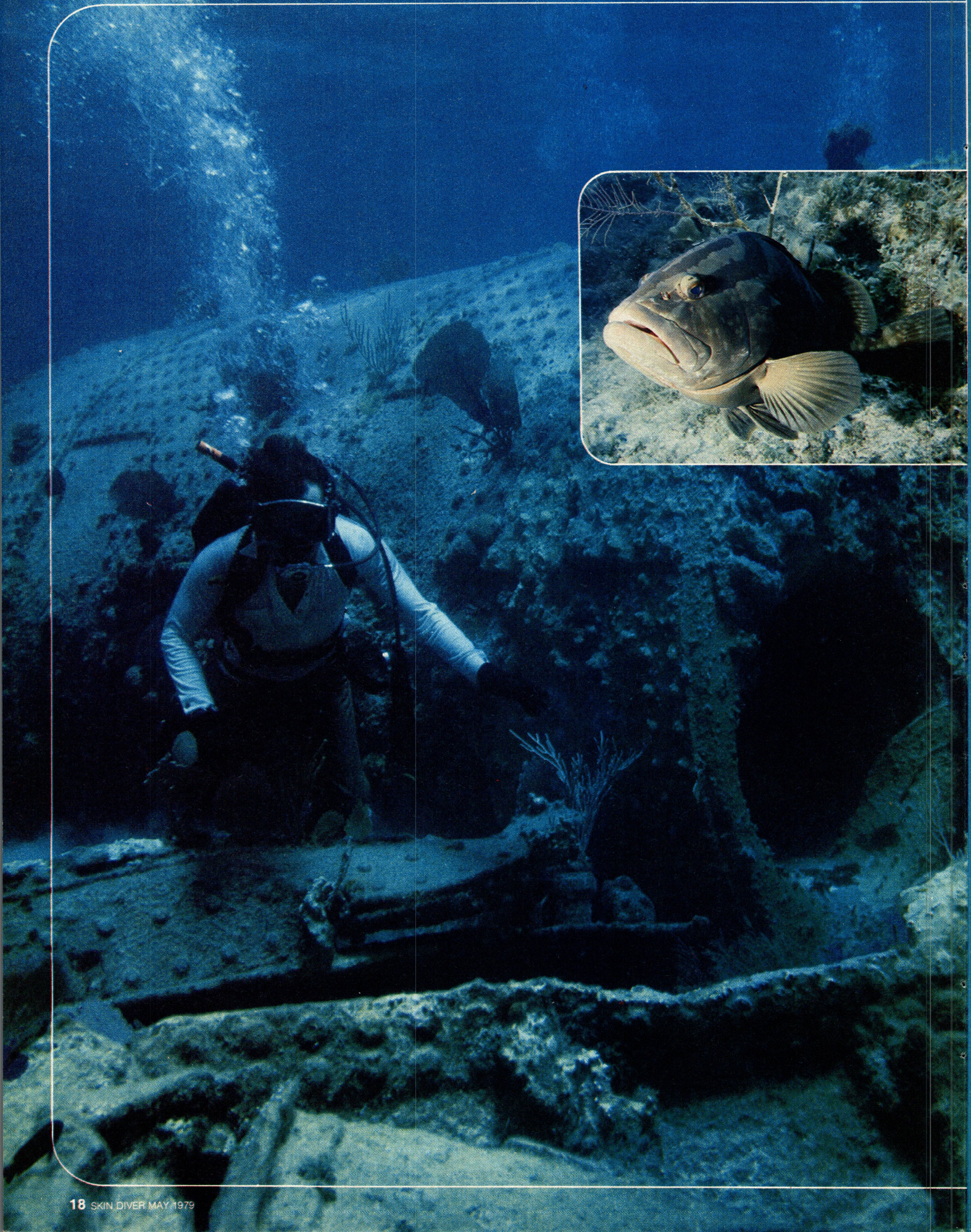
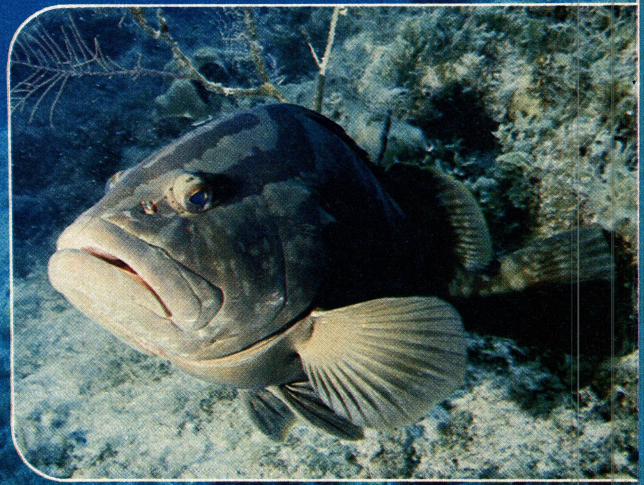
The strange new shapes which are constantly moving underwater can also activate your belief system early in your open water experience. When you are new and unfamiliar,

your eyes cannot quickly identify what those shapes are in the distance. The old belief system takes over and assumes that the movement may be something threatening. It triggers your survival instincts into action and says, "Watch out!" and the adrenalin starts pumping for action. Once again you find yourself removed from the real world, and reacting to an activated belief system which is producing anxiety, and taking the fun out of the dive.

When that happens, when you think you see something you don't understand or doesn't fit into a description of something safe, stay with it for a moment and observe it. Better yet, swim right up to it and confront it. In that single action you will be breaking down your belief system and replacing it with "real" information. In addition, your eyes will continue to develop their underwater sharpness which will enable you to identify quickly those underwater shapes and place them where they really belong.

If you are able to directly confront those underwater shapes as the opportunities present themselves (and they conveniently will), then you can evolve through your belief system in a short time. Once you're free of your preconceptions, you will be free to enjoy the sea. You will see it as it really is, a spectacularly different world of pure nature, containing treasures of every kind just waiting to be discovered. 

This article has been excerpted from The Inner Experience of Diving: A Beginner's Guide to the Water Planet. The book is available from Carlos Eyles, 925 Tia Juana, Laguna Beach, CA 92651.



The Mamiya M645 bears the distinction of having been the first 6x4.5 cm, medium format, single lens reflex camera in the world. It was perfected by Bell & Howell/Mamiya Company engineers in Japan in the spring of 1975. Since its introduction to the public that fall, there have been some 29,400 units of the M645 and its successor, the M645-1000S, sold worldwide.

In this short, four year period, the M645 has proven its reliability and effectiveness in a broad range of professional photographic applications, encompassing studio, on location and even aerial photography.

The product of years of technological development and a keen awareness of the ever-changing, highly-refined needs of the photographic industry, the M645 has successfully bridged the gap between small and large format cameras.

However, there was one challenge remaining: "To determine the practicality and usefulness of the M645 underwater!" Could the same features that made this camera such a success on land withstand the rigors and the special demands that awaited it underwater?

The Bell & Howell/Mamiya Company accepted the challenge. In June, 1978, Jim Trumpp, the company's technical information supervisor, met with Gary Kusimi, products manager, Tony Metz, chief technical representative, and Pat McNamara, director of advertising, on a proposal to have the M645 fitted for an underwater housing.

By early July, Trumpp had commissioned Ikelite Underwater Systems to design, engineer and manufacture a custom underwater housing that would accommodate the M645 system. Gale Livers headed up this ambitious effort at Ikelite, and, technician Steve Potier

did the actual handy-work on the assembly of the housing.

A few weeks later I was the proud recipient of a brand new M645 camera, freshly-mounted into a prototype U/W housing. Less than 24 hours later, I was on the sandy shores of San Salvador Island in the Bahamas, M645 in hand. It was on San Salvador's reefs that the M645 proved equal to the challenge of U/W photography. The most outstanding advantage of the M645 is

the picture-window capability of its 6x4.5 cm format. "What you see is what you get," applies here, as the viewing screen and medium format permits viewing and photographing a slide or negative that is three and one-half times larger than the popular 35mm format. Ultimately, anyone can capture far more detail, maintaining quality and sharpness in prints as large as 16x20.

This larger format also offers a greater margin around the main subject. After processing, cropping can eliminate unwanted images or compensate for imperfect composition. The M645 accepts 120 size film which produces 15, 6x4.5 exposures per load, or using a film insert, a roll of 220 film which allows 30 exposures.

All camera operating functions can be controlled with ease via Ikelite's ingenious engineering. And thus, the M645, a versatile, highly operative camera out of the water, becomes fully adapted underwater. Its features include a full focus range, generally from 1.75 feet to

infinity; shutter speed adjustments from 1/1000 of a second to an internally-timed exposure of 8 seconds, bulb and X sync at 1/60 of a second; and f stop adjustments from f22 to f2.8 or f1.9 depending on the lens used. The film advance crank, shutter release button and focus knob are all on the right side of the housing, minimizing preparation time between shots.

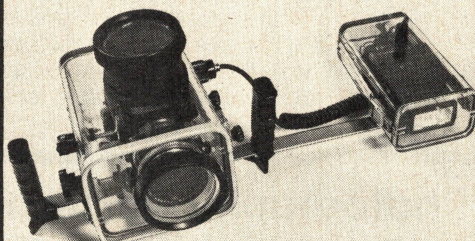
The Ikelite housing easily accommodates five of the M645's lenses; from the 45mm, f2.8

(Continued on Page 39)



THE MAMIYA M645

housed by Ikelite
goes underwater
By Bob Kimple



photograph by Barry Weiss

UNDERWATER FORUM

(Continued from Page 11)

facets of the problem and put all of them in their proper perspective. I hope that the article receives wide circulation and acceptance that it so richly deserves and that the affirmative programs that you have suggested be adopted.

Carefully thought out arguments both pro and con and the solutions that you have suggested can only benefit all parties who have an interest in this area of sports and conservation. Keep up the good work.

ROGER L. YOST
N. MIAMI BEACH, FL

Thank you for taking the time and trouble to write. Too often a writer works in a vacuum and wonders if his words are falling on deaf ears. It is letters such as yours that keep us banging away in the hope of striking a responsive chord.

The reaction to my spearfishing article was overwhelmingly favorable. Letters and phone calls have come from all parts of the country and most stressed the same points you made.

Unfortunately, however, virtually all of this reaction has been from individuals. The diving organizations such as clubs,

councils and the Society, have been strangely quiet – or at least their officers have not been heard from. One can only speculate as to the reason for this lack of response. My experience has been that quiescence regarding controversial issues is not a usual attribute of dive organization leaders. Perhaps they are thinking it over.

Bill Barada
SDM Environmental Editor

Bluefin for Doubles

The Seatec Bluefin stabilizing vest is designed to fit a single scuba tank. This is fine for most divers. However, if a diver likes the adventure of wreck diving this may pose somewhat of a problem. The solution, of course, is to use twin tanks. Thus, my modified Bluefin was born.

I used a Dacor twin tank backpack and cut two holes in the back panel of the Bluefin to permit mounting. To locate the proper position for the backpack, simply slip the waist belt through the Bluefin and lay the unit on a table. When the pack and vest are in the proper position, mark the hole locations with a pen or marking pencil. When the holes are marked, the pack and vest should be disassembled. At this point, cut the holes using a sharp knife. To prevent fraying at the holes, you can either use heat to fuse the threads, or apply glue to the area. To be on the safe side I did both. The Dacor mount comes with lock nuts, which I exchanged for a

pair of wing nuts. By doing this I can change backpacks in a matter of minutes without the use of tools. Backpack shoulder straps were retained to give added support for the excess weight of twin tanks.

THOMAS R. BRUNI
MAYVILLE, WI

Panhandle Dive Shop

Your February article on Florida Panhandle Diving failed to mention one of the finest full service, pro shops in the Panhandle, The Scuba Shop.

Owned and operated by Gary Howland, NAUI #13, The Scuba Shop offers complete sales, service and training.

For additional information on Panhandle diving, contact The Scuba Shop, 230 N. Eglin Parkway, Ft. Walton Beach, Florida 32548.

THOM LUSTIK
FREEPORT, FL

Ex-Buddy

Regarding your February, '79 story entitled A Friend In Need, by Bill O'Neal (page 49), I am glad to see this serious problem surface at last.

When it comes to being irresponsible, my dive partner follows Bill's to the letter. He is still my friend. But, "ex" now appears before the words dive buddy.

WILLIAM FEIG
BOYERTOWN, PA

Underwater Photographic & Diving Accessories From Glenn Beall

NIKONOS MOUNTING SYSTEM

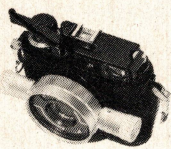
A complete system for mounting Light Meter, Camera, Underwater Light. Lets you get it and keep it all together, topside and underwater. The ultimate in convenience and one-hand operation. Fits Nikonos II & III. Complete Mounting System & Shutter Trigger—#27HC8—\$49.50, plus \$1.50 ship and handl.



LENS CONTROL EXTENDERS

#38HCJ1

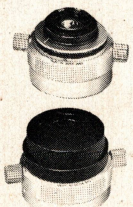
Bring the lens control knobs of the Nikonos camera out to where they are easier to get at. Oversized knobs are ribbed for easy gripping—and etched for writing lens setting. \$6 per set. Plus 50 cents shipping and handl.



LENS PROTECTOR

#34HCJ1

Guards Nikonos lens. "O" ring and housing fittings during storage or while changing film on crowded boat or dusty beach. \$3.00 each. Plus 50 cents ship & handl.



SEKONIC METER MOUNTING BRACKET

Designed for Sekonic Marine Meter II. Meter is securely locked into Mounting Bracket with 2 threaded screws, can be removed without tools. Mounting Bracket only #41HC32—\$12.95, plus \$1 handling charge.

HINGED LENS COVER

#51HC2

Threaded adapter and hinged cover eliminate the old problem of losing friction fit lens covers. The threaded adapter screws into any lens with a 58 mm thread (Nikonos 28 mm and 35mm lenses). \$6.95, plus 50 cents ship & handl.



THE OCTOPUS

#45HC2

Protects your see-through lens from becoming scratched and abraded on the dive, as well as during shipping and storage. 31 suction cups and pliable base allow The Octopus to adhere to flat or curved surface. Easily removed and replaced under water. \$2.25 each. Plus 50 cents ship & handl.



SHUTTER TRIGGER NIKONOS II & III

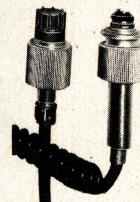
Provides one-hand operation of Shutter Release and Film Advance Lever. All manipulation performed from behind camera even while wearing gloves. Nikonos II (catalog #43HCJ1) \$8.50. III (#43HCJ3) \$9. Plus 50 cents ship & handl.



FLASH CONNECTOR COVER

#39HCJ2

For Nikonos. Keeps out dust and moisture, protects "O" ring and delicate contact tips during storage and shipping. Lessens risk of strobe or flash failure. \$2.50 each. Plus 50 cents ship & handl.



WRIST LANYARD

Guard against loss of expensive equipment. Looped Nylon line has nickel plated or bronze quick release thumb lever—and Dayglo Red plastic slide for tightening the loop. #33HC2 with nickel release \$3. #33HC2B with bronze release \$3.85, plus \$.85 ship & handl.

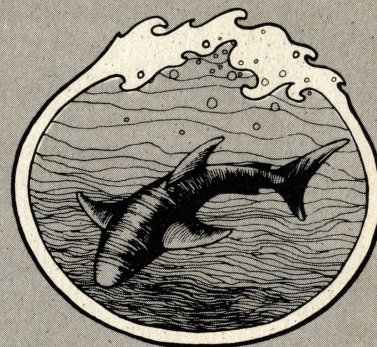


Send check or money order to: Glenn Beall/Industries, 885 S. Riverside Dr., Gurnee, Ill. 60031

Illinois residents add 5% sales tax.

Send 50 cents for full catalog—refundable. Dealer inquiries invited.

SCUBA CHROME JOURNAL



VOL. 1, NO. 2

PROMOTING EXCELLENCE IN UNDERWATER PHOTOGRAPHY

MAR/APR 1979

U/W PHOTOGRAPHS ARE SELLING

SCHULKE SHOWS IN ITALY



JOE CUELLAR of Tampa, Fla. is finding out what photographers everywhere are finding out... **GOOD PHOTOGRAPHS SELL.** He's selling color prints of his U/W slides at art and craft shows.



JOIN:

SCUBA CHROME INTERNATIONAL membership also brings you a **10 % DISCOUNT** from SCUBA CHROME, the world's only exclusively U/W custom lab service. **SPECIAL PRINT OFFERS** save you even more. All orders are examined for consideration in our **TRAVELING SALON**, a selection of fine color prints by top pros and amateurs that is made available to film festivals and trade shows. An ID card and **COLORFUL DECALS** are provided for your camera cases to identify you with the finest U/W photographers in the world. **JOIN SCI TODAY.**

ADVISORY BOARD

Some of the top pros in the world have been named to the SCI Advisory Board. Their active contributions will insure that SCI will offer only the highest quality services and advice to the serious U/W photographer.

FLIP SCHULKE

Miami, FL
Freelance U/W
Photographer

JACK MCKENNEY

Los Angeles, CA
U/W Film Producer
and Lecturer

GERI MURPHY

Los Angeles, CA
Photographer for
Skin Diver Magazine

PAUL TZIMOULIS

Los Angeles, CA
Editor-Publisher,
Skin Diver Magazine

RICK FREHSEE

Miami, FL
U/W Photographer
and Lecturer

JIM & CATHY CHURCH

Gilroy, CA
U/W Photographers
& Instructors

NEIL MONTANUS

Rochester, NY
Staff Photographer
Eastman Kodak Co.

RICHARD STEWART

Miami, FL
Publisher,
Sport Diver Magazine

MEMBERSHIP DUES

U.S., poss., Canada—First year **\$20** (\$15 dues, \$5 initiation)

Foreign—First year **\$25** (includes \$5 initiation fee)

SAVE \$5, JOIN FOR 2 YEARS—U.S. **\$30**, Foreign **\$40**.

SAMPLE NEWSLETTER AND FOLDERS \$2

SPECIAL: JOIN SCI AND GET CUSTOM 16x20 COLOR PRINT and 4x5

INTERNEG FROM A FAVORITE SLIDE FOR \$12 (reg. \$22.60)

- ☐ Enclosed first year dues (U.S. \$20, Foreign, \$25).
- ☐ I WANT TO SAVE \$5 for 2 years (U.S. \$30, Foreign \$40).
- ☐ Enclosed is additional \$12 and slide for **PRINT SPECIAL**.
- ☐ Enclosed \$2 for sample newsletter and folders.

Name: _____

Address: _____

Zip: _____

Charge to:

MC ☐ Visa ☐ # _____

Bank # _____

Exp. date: _____

Signature: _____

SCUBA CHROME — P.O. Box 25081 A — Tampa, FL 33607

IN THIS ISSUE

MARKETS...

A beautiful magazine that uses U/W photos

CHALLENGE...

How a female pro uses multiple strobes

INGENUITY...

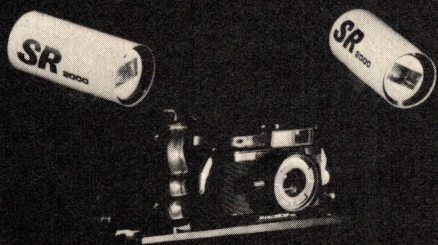
Selling U/W photos at art shows

SCUBA CHROME MAKES THE FINEST CUSTOM COLOR PRINTS FOR TOP PROFESSIONAL U/W PHOTOGRAPHERS. WE MAKE THE SAME FOR BEGINNERS AND AMATEURS.



This photo of an angel fish is one of Joe Cuellar's best sellers. He says good color prints, attractively matted and framed, are necessary for success.

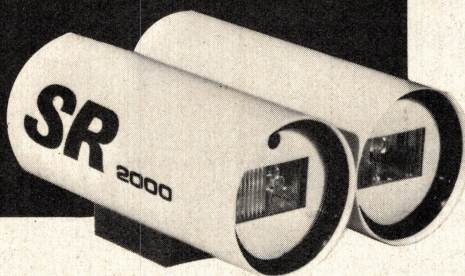
COMPACT MULTIPLE LIGHTING THE SR2000 SYSTEM



*It's easy with
the SR200 Sync
and Cordless Slave.*

ADVANTAGES:

- COVER WIDE ANGLE LENSES
- GUIDE NO. 80-ASA 64 FILM
- ELIMINATE DARK SHADOWS
- VERSATILITY WITH 30 PROFESSIONAL ACCESSORIES
- RECHARGEABLE—250 FLASHES



SONIC RESEARCH

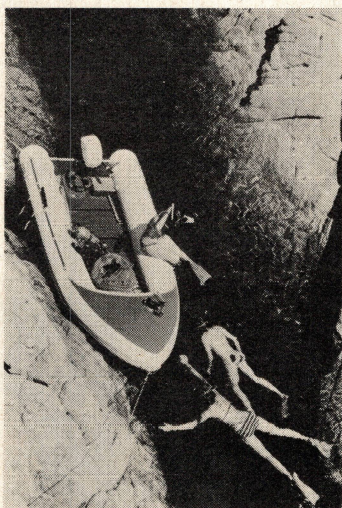
5111 Santa Fe, Suite H, San Diego, CA 92109

Send for FREE fact kit

designed for divers: BONAIR INFLATABLE BOATS

Bonair high-performance inflatable boats give you more diving ease, new diving fun. Your Bonair is unpacked from your car trunk, inflated and on the water in under ten minutes. It is portable and launches anywhere, so there's no waiting (or looking) for boat ramps or level shoreline. Bonair's tough hull bounces safely off stumps and rocks. It won't lean while cornering or tip while boarding. You'll have amazing speed, performance and stability with 7½ to 40 HP motors . . . BIA rated. Plus ample room for gas tank, air tanks and diving gear.

Choose from seven models ranging from six-passenger to two-passenger sizes, all guaranteed in writing. Made in U.S.A. Bonair boats may be purchased with Master Charge or BankAmericard. Write now for full descriptions and direct factory prices.



Bonair Boats, Inc., Suite 29 E, 15501 W. 109th St., Lenexa, Ks. 66219

☐ **YES**, please send my free Bonair Fact Kit. I want to know more about how Bonair can give me new fishing and boating enjoyment.

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____



UNDERWATER FORUM

A Closer Look

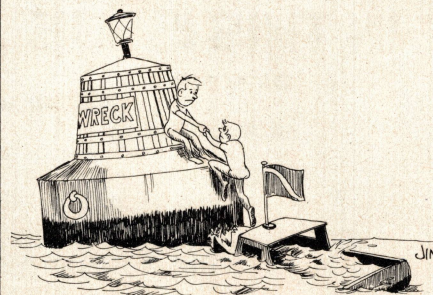
I was most distressed to read Mr. Joseph W. Hagen's comments [SDM Feb '79] on your editorial, Who Is Killing Our Oceans? [SDM Oct 1978]. Mr. Hagen believes that the increased temperature of sea water released from power plants has no effect on sea life and he would "welcome all the 'thermal pollution' we can get" to increase his diving pleasure in the cold waters of California. Although Mr. Hagen is correct that the word pollute means "to make foul or unclean" . . . [he] seems to lack an understanding of marine processes.

Different marine organisms can tolerate different extremes in sea water temperature changes. Even the same species in different geographical areas are adapted to optimum temperature ranges in those areas which influence their growth and reproduction. For example, some species are dependent on definite minute temperature changes to trigger spawning. While the sea life may appear to be "thriving" in thermal effluents off the coast of California, I believe a closer examination is in order . . .

Recent research has shown that many organisms found in either thermally or chemically polluted areas which are alive and appear to be functioning normally at first glance have actually undergone significant adverse microscopic tissue changes which affect their ability to feed, grow and reproduce and increase their susceptibility to attack by parasites or bacteria.

It may be months or years before this damage is readily visible as entire populations die off, and areas are either not recolonized or are replaced by a few more tolerant species . . . While work is proceeding on the use of thermal effluents to culture commercially important fish and shellfish, much research has yet to be done on the subtle effects of even minor environmental changes and how they control the survival of marine organisms in a given area over long periods of time. The final assessment will involve consideration of numerous complex and interacting factors . . .

ESTHER PETERS
ST. PETERSBURG, FL



If you took a photograph this great,
where would you get a print this good?



Introducing Accent35

We're Meisel Photochrome Corporation, the country's largest custom color lab for professional photographers.

And we've spent 20 years building a reputation for the best quality and service to pros.

Now, after many requests for service by non-professionals, we have created Accent35. Its sole purpose is to offer the best film processing, color prints and enlargements to all serious photographers.

So, if you're looking for something better, send us your 35mm color negative film for processing and prints or your best 35mm color negatives and slides for color enlargements. (No 110 or 126 film, please.)

We make economical machine prints, also superb custom prints that are enlarger-made by hand, cropped, dodged and burned-in.

As an introductory offer, we're giving you a special price on custom 8x10 prints from your 35mm color slides and negatives. They're only \$4.95 each until June 30, 1979.

So try us. Use the coupon or a letter to order, then see if you don't agree that Accent35 is the place to get a good color print.



©1979 Meisel

Special Introductory Offer!

Process & 3 1/2 x 5 prints: 35mm rolls enclosed

☐ 20 or 24 exposures @ \$4.75

☐ 36 exposures @ \$6.75

Color enlargements: originals enclosed

Custom 8x10 @ \$4.95 11x14 @ \$7.50

Machine 8x10 @ \$2.00 11x14 @ \$5.10

Add 10% for postage and handling, also add sales tax for TX, WA and GA.

☐ Check or MO enclosed. Total \$

☐ Credit Card No. Expires

☐ Visa

☐ Master Charge

Signature

☐ Please send me information on other services.

Name

Address

City

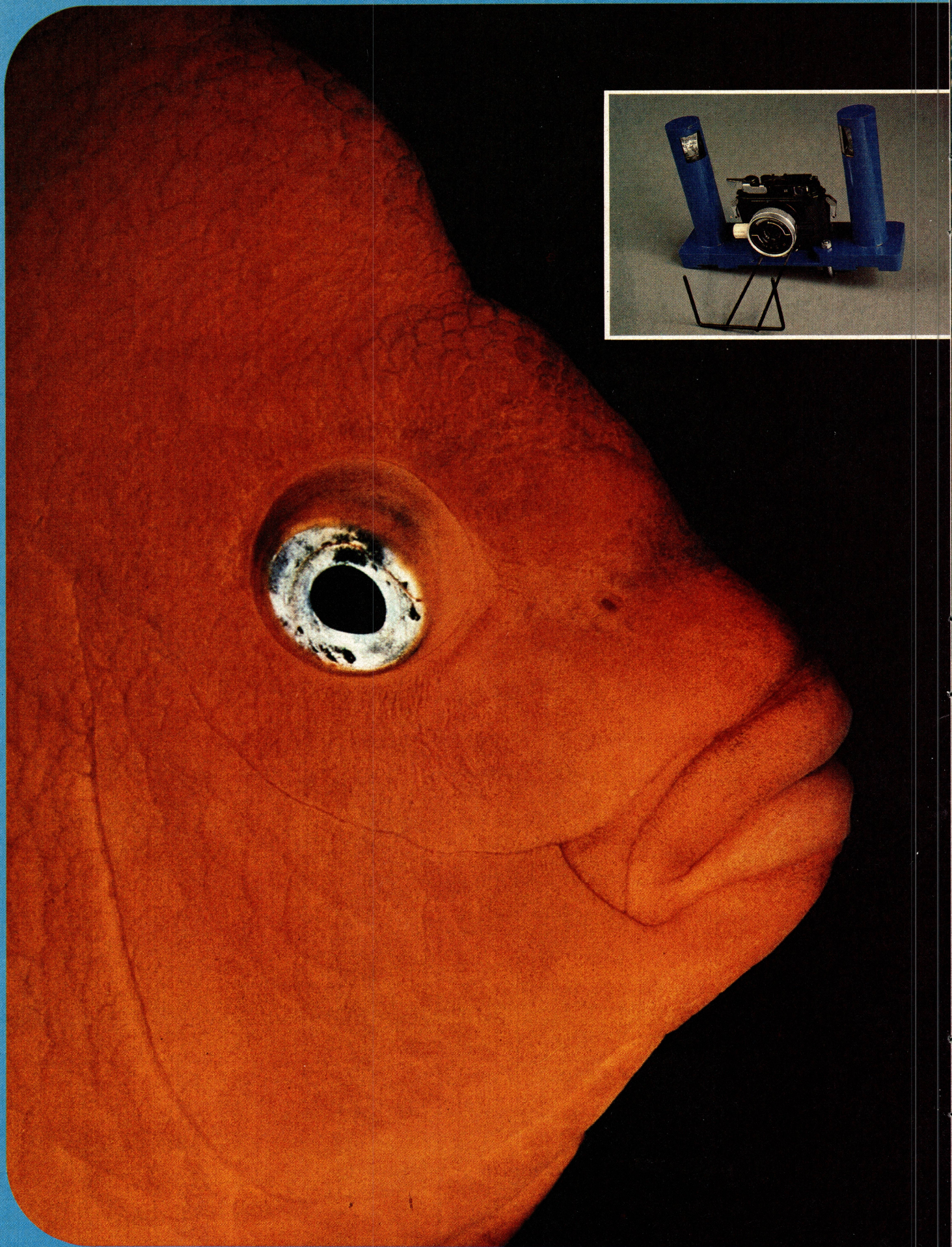
St.

Zip

Offer expires June 30, 1979. Frame not included.

Send to: Accent35, P.O. Box 220014G, Dallas, TX 75222

Accent35TM
A division of Meisel Photochrome Corporation



In front of our boat lay Santa Cruz Island. There, in California's Santa Barbara channel, live some of our world's most beautiful flora and fauna, both above and below the water. As we suited up, my wife Sue and I talked about shooting some of Santa Cruz's marine life in the only way we would ever consider — with cameras.

Sue had been a land-locked close-up photographer for many

diver taking some of her first underwater photographs.

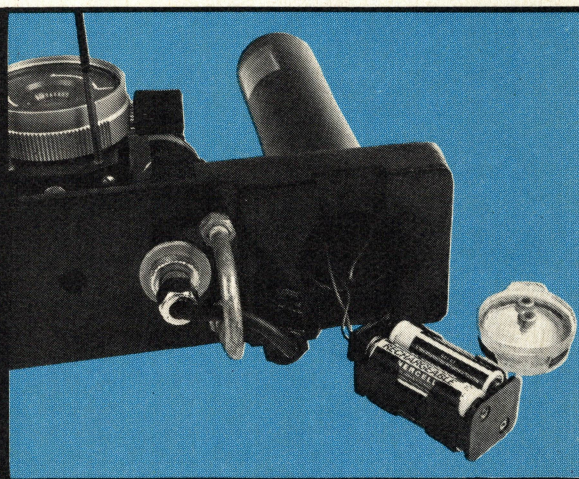
A short time later Sue motioned me to come see what she'd found. In between two rocks she'd discovered a beautiful red tube worm. However, she'd also discovered another problem with her camera set-up — the Nikonos and strobe wouldn't fit between the two rocks. She unhappily gave up that shot, and we swam to the upper edge of the reef.

"Also, build the whole thing small enough to fit into a little place. And, can you make the flash a part of the handle and trigger unit so I can fire it one-handed when I've got to hold onto a reef in a strong current?"

"Let's see, what else? A battery-saving device would be nice, too, but without a lot of electronics. By the way, make it a double strobe with an option to change the lighting ratio, and give it a single flash setting

THE LIGHT HANDLE

A BRIGHT IDEA
By Jack Drafa Jr.



photography by Jack and Sue Drafa Jr.

years, but had only recently ventured into U/W photography. Therefore, much of my equipment was new to her. She had no trouble with her dive gear. But when I handed over her camera set-up, she nearly dropped it to the deck.

"It's so heavy," she said, "nothing like my regular close-up camera. Why all this bulk?"

I answered, "I don't like the bulk either, but that's all you can buy."

A little later we were underwater, and we swam to the nearest reef. Unfortunately, I ran into immediate problems. I tried repeatedly to get my strobe working, but it wouldn't operate. Reluctantly I resigned myself to watching Sue as she worked another small reef nearby.

As I approached her, I could see that her strobe angle was slightly off axis. Remembering all the times my strobes had been off axis yet looked fine through the distorting ocean water, I signaled Sue about the problem. Only after using a great deal of muscle was I able to loosen the flash and reposition it. Again I moved away, to watch the enthusiasm of a

The current there was much stronger. Sue found that if she held onto the reef with one hand she couldn't hold both the camera and flash with the other; but if she didn't hold onto the reef, the current would slam her into the rocks.

When we'd developed and mounted Sue's slides, we were pleased to see several beautiful shots, but I pointed out she'd lost many more due to difficulties with the camera's configuration. This prompted a rehashing of the problems we'd had. Sue complained she'd spent more time adjusting her equipment than actually taking pictures. She then suggested that I, notorious for tinkering at my workbench, build for her Nikonos a strobe with "just a few" special features.

"No switches, no cords hanging down, no strobe arms to adjust, and no clamps or screws," began Sue. "And put on a special guard to protect the Nikonos connector, plus an automatically adjusting Nikonos plug so the pin is easy to fit into the camera body.

so I don't need to adjust it for 1:1, 1:2 and 1:3 close-ups."

What could I say? It was certainly a tall order, but any self-respecting amateur inventor would have jumped at the challenge. Four days later I presented Sue with the first prototype of my Electronic Handle.

Basically, the Handle is a plexiglass bar with various holes, slots, and grooves to hold the camera, plus two plexiglass tubes that form vertical handles at either end of the bar. Inside each tube is an electronic flash atop a stack-pack of four AA batteries. The top of each tube is permanently sealed, and the bottom of each has an O-ring plug held in place by a bayonet mount.

The synchronized wiring is routed through sealed grooves in the plexiglass camera bar to a Nikonos plug that's protected by a U-bolt and tightened down so the pin correctly mates with the camera.

The final touch to the Handle is two specially placed mercury switches that turn the flash on or off depending on the camera's position. When



Put yourself in a suit made with Rubatex Closed Cell Neoprene

Enjoy the comfort and dependability you've always sought in a wet suit. It's the material that has become a solid success. It is a proven performer in suits made and used around the world in diving, surfing, skiing; and in snow wear. Nothing else even comes close to it.

Watch for the hang tag. It's your clue to the right suit.



RUBATEX

CORPORATION

BEDFORD, VIRGINIA 24523

A SUBSIDIARY OF GREAT AMERICAN INDUSTRIES, INC.

WESTERN STATES: 14715 ANSON AVE., SANTA FE SPRINGS, CALIF. 90670, U.S.A.
EUROPEAN ADDRESS: 5, RUE D'ARTOIS, PARIS 8E, FRANCE

THE LIGHT HANDLE

Sue turns the camera upright or points it down, the strobe is on — automatically! And to prevent the strobe from not operating when being used upside down, for example under a cliff, Sue only needs to tilt the Handle forward for three or four seconds, till its flash recycles, as indicated by a highly visible ready light. Thus the mercury switches add the battery-saving feature Sue wanted.

Sue's problem with the flash angle is



Sue and Jack Drafa

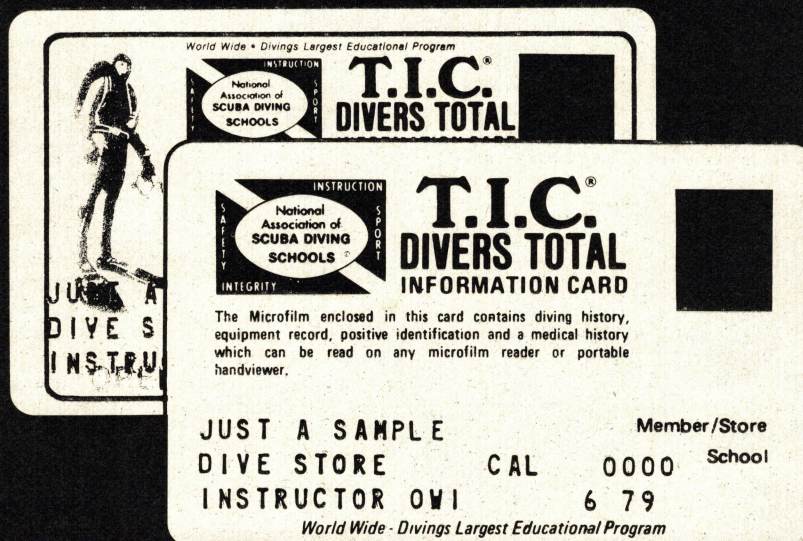
easily solved by the Handle. If she points the strobes at the 1:2 framer, the angle is wide enough to cover the 1:1 and 1:3 framers, too. The exposure for Kodachrome ASA 64 for the 1:2 and 1:3 framers is f16, with an exposure of f11 for the 1:1 framer.

As for Sue's reaction to the invention she inspired, well, she's crazy about it! She's done so well with it that I recently completed a second Handle for myself. With it, I've discovered a multitude of applications. For one thing, tidepool photography becomes much more feasible. The Handle is so small it works easily in slight, shallow puddles. Another use is in the field of scientific photography, where I've found the Handle system easy to teach to scientists with little or no knowledge of underwater photography. I merely hand my apparatus to one of my scientist friends, then show him how to position a subject in the framer and how to push the shutter. All he has to do is find his subject, and the Handle does the rest.

The Handle sells for \$300. For more information write me, Jack Drafa, % Kritter Labs, 5572 Nelson, Cypress, California 90630.

Or write my wife, Sue, the inspiration for my bright ideas. 

THE WAY WE MAKE OUR LIVING.



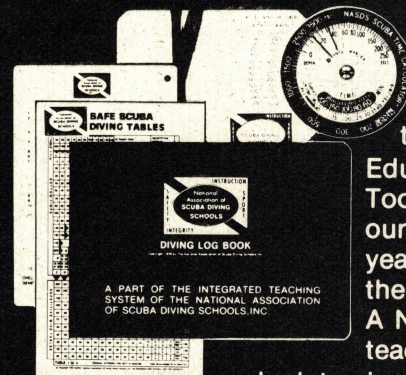
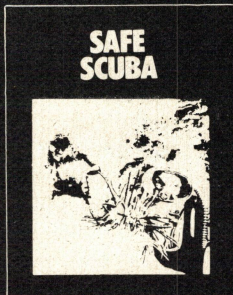
If you didn't know any better, you might think that all sport diving associations are the same. They're not.

We at NASDS offer the best and most progressive scuba instructional system in existence. Here are some reasons why.

Some associations allow their instructors to "cross-over". For example, a PADI instructor can issue a NAUI card and a NAUI instructor can issue a PADI card. A YMCA instructor can issue both a PADI card or a NAUI card. In fact, some instructors issue cards for all three associations.

Their instructors can "cross over" because these programs are hash-over repeats of the same old physics and physiology laws and swim tests.

There is only one Solid Gold Safe Scuba System and it is not taught by a PADI, NAUI or YMCA instructor that was able to "cross-over" from one program to another.



The NASDS course is taught by a true professional who uses the exclusive

Educational Learning Tools developed by our schools and 18 years of experience in the diving industry. A NASDS instructor teaches you how to

calculate air consumption using the NASDS Scuba Time Calculator and how to plan dives using the NASDS Dive Planning Slate and NASDS Safe Tables. You learn how to use the NASDS Log Book as a dive planning and information source.

NASDS qualified divers receive the T.I.C. or Total Information Card, another NASDS exclusive.

You should know about us. We are the professionals. NASDS has to be better because this is the way we make our living.

NASDS can make your business more professional if you are a retail scuba store/school owner. Only the finest scuba store/schools belong to the National Association of Scuba Diving Schools. If you would like more information, call (213) 595-5361, or write: NASDS, P.O. Box 17067, Long Beach, CA 90807

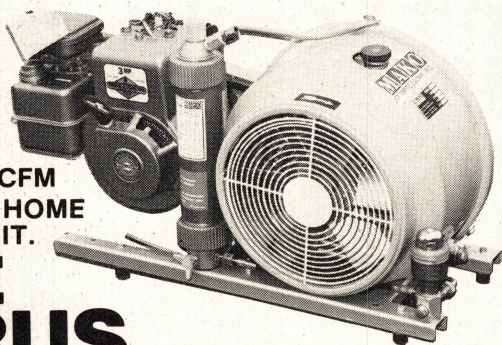
NASDS's Professional Diving Instructors College provides the finest scuba instructors course available for highly motivated people who want a full time career in the diving industry. Write: NASDS Diving Instructors College, 4004 Sports Arena Blvd., San Diego, CA 92110. Do not confuse imitations in the same area with the NASDS College.

NEW FOR PURUS. A REPLACEABLE CARTRIDGE FOR CARBON MONOXIDE REMOVAL.

PROCESSES 2200 CUBIC FEET OF AIR
BETWEEN CHANGES

3200 PSI, 3 CFM
DON'T LEAVE HOME
WITHOUT IT.

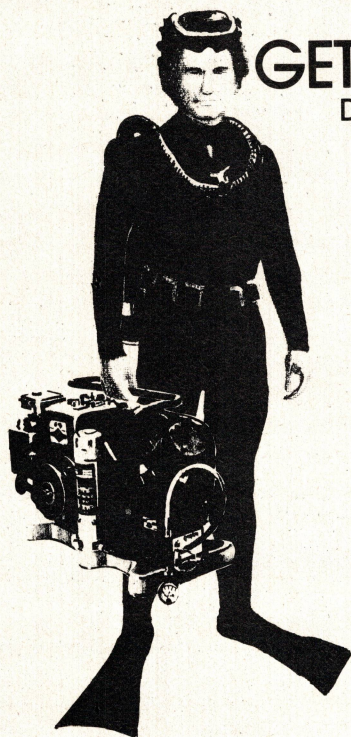
THE PURUS



MAKO

COMPRESSORS, INC.

P. O. DRAWER 1630 OCALA, FL 32670
PH: (904) 732-2268 TELEX: 56-336



GET CARRIED AWAY DIVE WHEREVER YOU WANT

Take it with you and fill your own.
At 90 pounds an easy pick up.
The specially designed purification system delivers fresh air
exceeding all standards.

This small wonder runs by
gasoline, electric or diesel power,
THE CHOICE IS YOURS.

Rated at 4500 psi a standard
"72" takes approximately 25
minutes to fill.



**AMERICAN BRISTOL
Industries, Inc.**
1600 West 240th Street
Harbor City, CA 90710
(213) 534-5981

"Contact me for more information"

Medifacts

BY CHARLES V. BROWN, M.D.

COMMENTS AND QUESTIONS

A sad story comes out of Virginia. A diver saw himself in the Nov. '78 Medifacts column, a year too late, and has written in to share his tale. One day he'd had difficulty clearing his ears, but the lake was beautiful, and he had managed two dives. Ascending from the second, he had experienced severe pain and a sense of great pressure trying to push his eardrum out. He'd gone back down three or four feet and attempted to clear. This resulted in a loud "bam" and ringing in the ear, but no relief at all. An emergency room doctor had found his eardrum unruptured but bulging, with evidence of blood behind it. Since then he has dived without further problems, but the ringing still persists, and there is some hearing loss.

We agree with the Virginian's belated self-diagnosis. In all probability he, like the diver he'd read about, was a victim of ear window rupture. That is, one of the two membranes between the middle and inner ear became torn, allowing inner ear fluid to leak into the middle ear. The squeeze he experienced during descent proves that his eustachian tube wasn't working well. The pain and bulging during ascent point strongly to reverse squeeze, with overpressure in the middle ear. The usual maneuver for clearing, blowing air into the middle ear, is bad for reverse squeeze. It increases the over-pressure, which can blow out a window. On the other hand, when the problem is really ordinary squeeze (middle ear vacuum), the same clearing maneuver can rupture a window by a different mechanism. Blowing against a closed mouth and nose raises the venous blood pressure, which in turn raises the fluid pressure in the inner ear. If the eustachian tube fails to open, the increased pressure differential pops the window. Either way, the result is any combination of hearing loss, ringing noise, dizziness, and nausea, often permanent if not treated promptly.

Too many divers have wrecked their ears through ignorance or carelessness, and then compounded the tragedy by neglecting an opportunity for salvage. Here are three key rules for ear safety. 1) Never descend if you can't clear easily. 2) Maneuvers used to inflate the middle ear should never be strong or prolonged, and never used for reverse squeeze. 3) If any ear symptom that begins during or after a dive doesn't quit in several hours, see a doctor.

What doctor? It is well to keep in mind

that dive medicine is a new field, until recently not taught in medical schools. Different ear disorders call for quite different management, so correct diagnosis is important. To sort out a diver's symptoms, a doctor must not only know about squeeze, inner ear bends, and window rupture, but must understand how the events of a dive bring them on. Your best bet is to find an ear specialist familiar with dive medicine. Failing that, seek a specialist in either ears or dive medicine, tell him all you know, and leave it up to him to obtain appropriate consultation. Spread the word to other divers. Maybe there'll be fewer sad stories.

UNDERWATER BLEEDING

F. J. Walters and F. W. Garber of Oak Ridge, Tenn. have written to point out that first aid for bleeding is a little different when it occurs underwater. On land, elevating the injured part is a big help, since it enlists the aid of gravity. The heart normally pumps blood at a pressure of about 120-130mm of mercury. If you raise an arm or leg two feet, you get 46mm of mercury back pressure to oppose bleeding. Underwater, the aid of gravity is lost. When you raise your hand in air, the pressure of blood within it drops, while outside (ambient) pressure does not. But when you raise your hand underwater, the outside pressure drops about the same amount as does the pressure of blood within, so the gradient

for bleeding is unchanged and there's no advantage. Should you encounter serious bleeding underwater, the first priority is to gain control of the victim, so that you can 1) prevent a panic ascent with its danger of air embolism, and 2) get at the wound. Next is direct pressure, and controlled ascent.

LUNG CONTROL

Will Young of Bellevue, Kentucky, writes of using lung volume control to rise or sink when exploring a bottom that has reef outcroppings or quarry rocks. This technique is certainly efficient — there's no need to use muscles or consume air for moving up or down. It does require that the diver be trimmed for neutral buoyancy on the bottom. That is, he should neither rise or sink when his lung volume is medium. Many good divers use it. There's no special hazard, *provided* the airway remains open. Holding one's breath for more than a few feet either up or down invites trouble. Ascending with lungs full, one risks lung blow-out and air embolism. Descending with lungs empty risks lung squeeze.

READER QUESTIONS

Question: Terry McDonald of Ontario, Canada, is getting used to his new hard contact lenses. He'd like to know about any problems that might arise if he takes them diving.

Answer: Medifacts has discussed this

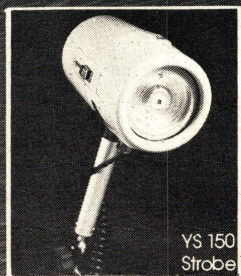
subject, but continuing reader interest warrants repetition. In general, people who wear contact lenses topside can also wear them diving. One factor that limits the time one can leave the lens in his eye actually improves with diving. This is oxygenation of the cornea — the clear front part of the eye upon which the lens rests. The cornea has no blood vessels and must get its oxygen directly from the air. When a hard contact lens is worn, oxygen must diffuse around its sides and through the layer of tear fluid beneath. At depth, the high partial pressure of oxygen facilitates this process.

Since there is no air space between a contact lens and the eye, squeeze need not be considered. We've had rare reports of temporary visual blurring after diving with contacts, usually involving only one eye. The reason is not clear, but we suspect that improved fitting would alleviate the problem.

The main risk a diver runs in wearing contacts underwater is losing them. They'll wash out if the mask is lost or floods. It's not smart to wear them going through surf unless one is experienced, as surf has a voracious appetite for masks. Should a mask flood, squinting until it is cleared will prevent lens loss.

A friend of ours loses a contact lens about once in every 300 dives, and always finds it in his mask. Such luck cannot be guaranteed, so we suggest keeping a spare set handy.

Leach Photo Systems



YS 150 Strobe



SM I
Sekonic Marine
Meter Bracket



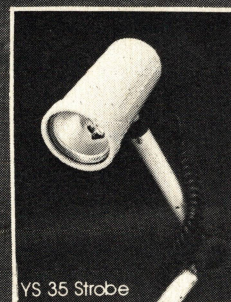
YS 150 Open for charging

YS 35-2
35 ws. rechargeable strobe

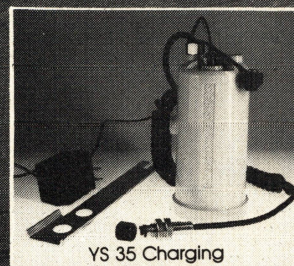
SA II
Sea Arm II

VF 1
Optical Viewfinder
MR 4
Macro-ring

SG 2
Sea Grip
(Nik. II trigger rel.)



YS 35 Strobe



YS 35 Charging

For more information:

- ☐ Please send catalog (Enclose \$1.00)
- ☐ Place my name on your Photo Dive Trips mailing list.

Reply to:

Leach Photo Systems
P.O. Box 75
Keno, Oregon 97627

Sold only in selected pro
dive shops

• DEALER INQUIRIES INVITED •

NAME

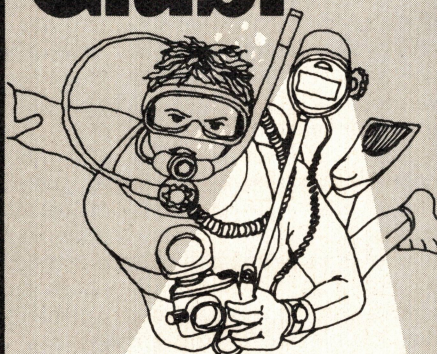
ADDRESS

CITY

STATE

ZIP

Toshiba joins the Glub.



The Toshiba Toshmarine TM-1 strobe light was specifically designed and engineered for under water photography. It's lightweight, rugged, compact and comes complete with adjustable arm and an 8 foot coiled cord with universal adapter. The perfect mate for any Nikonos and other underwater cameras and gear. The dome, 4.6" long and 3.8" in diameter, weighs a mere 2.4 lbs. the flashtube and reflector are recessed so as to withstand accidental impact. It's tested to a depth of 396 feet! Powered by four AA size alkaline penlight batteries that provide up to 250 flashes and recycles in 5 to 7 seconds.

Batteries install by hand in seconds. No tools needed. The powerful, intense, wide beam lights a big 75° horizontal and 60° vertical area to capture virtually any picture.

All controls are all conveniently located at the rear of the strobe and easy to use, even with a glove. It has a guide number of 41 (ASA of 25) above water.

If you've been impressed this far, you should be. It's a remarkable piece of equipment made by one of the largest electronics specialists. And priced well below anything comparable.

See the Toshiba TM-1 at your dive shop or photo specialty dealer. Or write for descriptive literature.

Toshiba
Dist. by ELMO MFG.

70 New Hyde Park Rd., New Hyde Park, NY 11040
21220 Erwin St., Woodland Hills, CA 91367

MEDIFACTS

Question: Lt. R. Ramasnamy of the Indian navy specialized in mixed gas deep sea diving until he lost his right leg in an accident. He's very keen on resuming a diving career. Can the disability be overcome? Will the amputation present physiological problems for deep diving?

Answer: Stick to your wheelchair — the ocean's no place for a cripple. Failure guaranteed. You've probably heard such advice plenty of times. Don't believe it. One of the ablest commercial divers of all time was missing not only a leg, but an arm, too. We know one diver whose legs are both gone above the knees. The main functions of the lower leg, anti-gravity support and walking, are much less important underwater. Ask any porpoise.

You'd have trouble with conventional hardhat dress that uses more than 100 pounds of lead to permit bottom walking. But these days a lot of commercial diving is done in the neutral buoyancy mode, using fins for propulsion. Your mobility would not be badly limited. Kicking with one leg drives you more than half as fast as would two. Strapping a fin to your stump should give you near normal locomotion. The fin could be oversize to compensate for the reduced excursion of the shortened limb. I don't know of any manufacturers who make custom fins for amputees, but with ingenuity a standard fin can be modified to fit. As for the stump causing physiological problems at depth, there's no need for concern.

Question: A young woman of New York, who wishes to remain anonymous, wonders what evils might befall her if she dives while taking birth control pills. Could pressure render them harmful, or inactivate them, or perhaps even reverse their effect? Her instructor was very definite that pills and diving don't mix.

Answer: It's true that pressure can affect drugs in strange ways. Their activity can be increased, reversed, or otherwise changed. However, birth control pills merely mimic the natural hormonal climate that exists within the body during pregnancy (women don't get pregnant while already pregnant), and there's no evidence that pressure makes any difference. Still, there is one caution. The pill favors blood clotting, at least a little. Bubbles in the blood also favor clotting — an important factor in the development of decompression sickness. Therefore it seems reasonable to suppose that the pill may increase the risk of decompression sickness. How much, no one knows. We can only suggest that users dive more conservatively.

Question: Will swimming (or diving)

soon after eating cause stomach cramps? How long should one wait? Louis Cimon of Quebec, Canada, has heard so many different opinions that he doesn't know what to believe.

Answer: A cramp is simply a painful muscle spasm. It commonly results when blood circulation is inadequate to support the demands of a high work load. The gastrointestinal tract works hard to handle a large meal. Its musculature contracts in peristaltic waves to mix the food with digestive juices and keep it moving down the line. Its glandular cells supply mucus and enzymes, and its epithelial lining absorbs nutrients. All this takes a lot of blood. If at the same time hard exercise demands most of the circulation for the skeletal muscles, there won't be enough to fill all the needs, and any deprived muscle may cramp.

Light exertion is OK immediately after a light meal. The bigger the meal and the harder the exertion, the longer you should wait, up to several hours. To prepare for a hard day's diving, it's best to charge up your fuel reserves the day before, and eat more lightly on D-day.

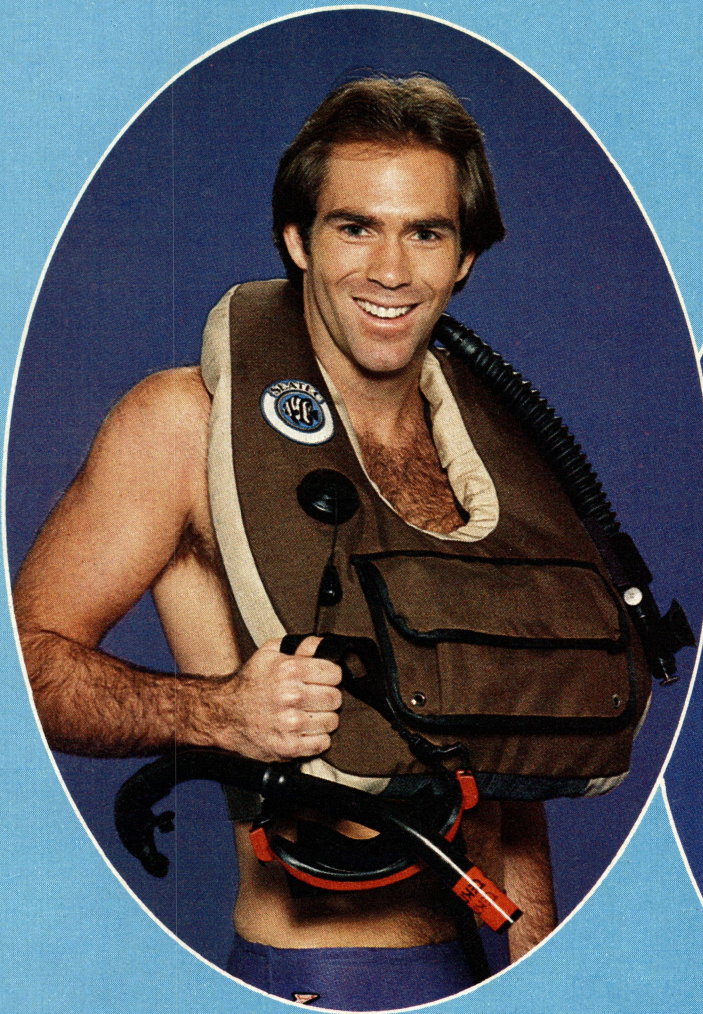
Question: Robert Wilson of Fort Howard, Md., was present when a swimmer struck his head as he fell from a raft into the water, and required CPR. This got him to thinking, and he asks as follows. If the exhaust tees on the second stage of a regulator were closed, could the regulator be used as a mechanical inflator, by pushing the purge valve with the mouthpiece in the mouth? Would there be danger of over-inflation of the lungs? Also, if the mouthpiece could not be used, what about an adaption to fit the regulator in the form of a facemask?

Answer: Yes, the regulator could be used as you suggest, provided you also block the victim's nose. However, there are serious drawbacks. If you don't make a good seal, ventilations will not be adequate. If you do make a good seal, the high pressure air (about 130 psi) delivered could easily rupture a lung. It is quicker and much safer to give mouth-to-mouth ventilations.

Good mechanical ventilators are available and are highly recommended. The Robertshaw model, for example, uses a scuba-type regulator, but has a pressure relief valve to protect the lung. It is attached to a small oxygen bottle — far better than air for resuscitation.



fresh for the sea fresh from SEATEC



SUNFISH Buoyancy Compensator. Seatec's largest conventional B.C. The Sunfish features a single adjustment "Diamond Harness." Created with comfort in mind, this design eliminates hassles formerly associated with front mounted vests. Only Seatec has "Tuff Tiger Threads" plus "Incredible Innards" bladder with the original owner guarantee.

Tuff Tiger Threads are available in orange, blue, green, chocolate and navy . . . all with coordinated accents.

Step out of the ordinary . . . Experience the SEATEC dimension at your local dealer today!
Send \$2.00 for '79 catalog and decal



BABY BLUEFIN Stabilizing Vest. Created especially for women and smaller divers with their comfort in mind. The Baby Bluefin's unique single waist strap design allows total movement and complete diving freedom. Only Seatec has "Tuff Tiger Threads" plus "Incredible Innards" bladder with the original owner guarantee.



P.O. Box 1109, 600 North Batavia Street,

Orange, California 92666 Phone (714) 639-6662

Every once in a while a piece of camera equipment comes along which significantly extends or elevates the state-of-the-art. The Pentax 6x7 Marine Housing is such an item, and its introduction to the dive world has added a new dimension to the field of underwater photography. Designed and manufactured in Japan by the Asahi Optical Company, the Pentax 6x7 Marine Housing is a rare prize among SLR's.

THE CAMERA

Before we discuss the features of the underwater housing it is important to un-

derstand the basic design of the Pentax 6x7 camera. Regarded among professional photographers as a top-of-the-line camera, the Pentax 6x7 combines the advantages of 35mm SLR interchangeability with the superb picture quality of a large format studio camera. It is the jumbo jet of SLR's and a favorite choice among today's professional studio cameramen.

The major advantage of the Pentax 6x7 is its giant negative format. It uses 120 or 220 film and produces a negative which measures $2\frac{1}{4}$ inches wide by $2\frac{3}{4}$ inches long. The negative is almost four and one-half times larger than a 35mm negative and thus contains far more color saturation. Color prints produced from this giant size negative (or transparency) are far richer in color, detail, and contrast. The 6x7 negative has the ideal format ratio for producing standard prints in 8 x 10, 11 x 14, or 16 x 20 inch

sizes. Cropping is virtually unnecessary, as almost every bit of the negative can be utilized.

The second advantage of the Pentax 6x7 is that its configuration is almost identical to that of the basic 35mm SLR. There are 13 different lenses, equipped with fast-change bayonet mounts. There are also interchangeable viewfinder prisms and many other accessories comparable to those of its little brother SLR counterparts. The Pentax 6x7 looks and feels like an SLR built for the Jolly Green Giant.

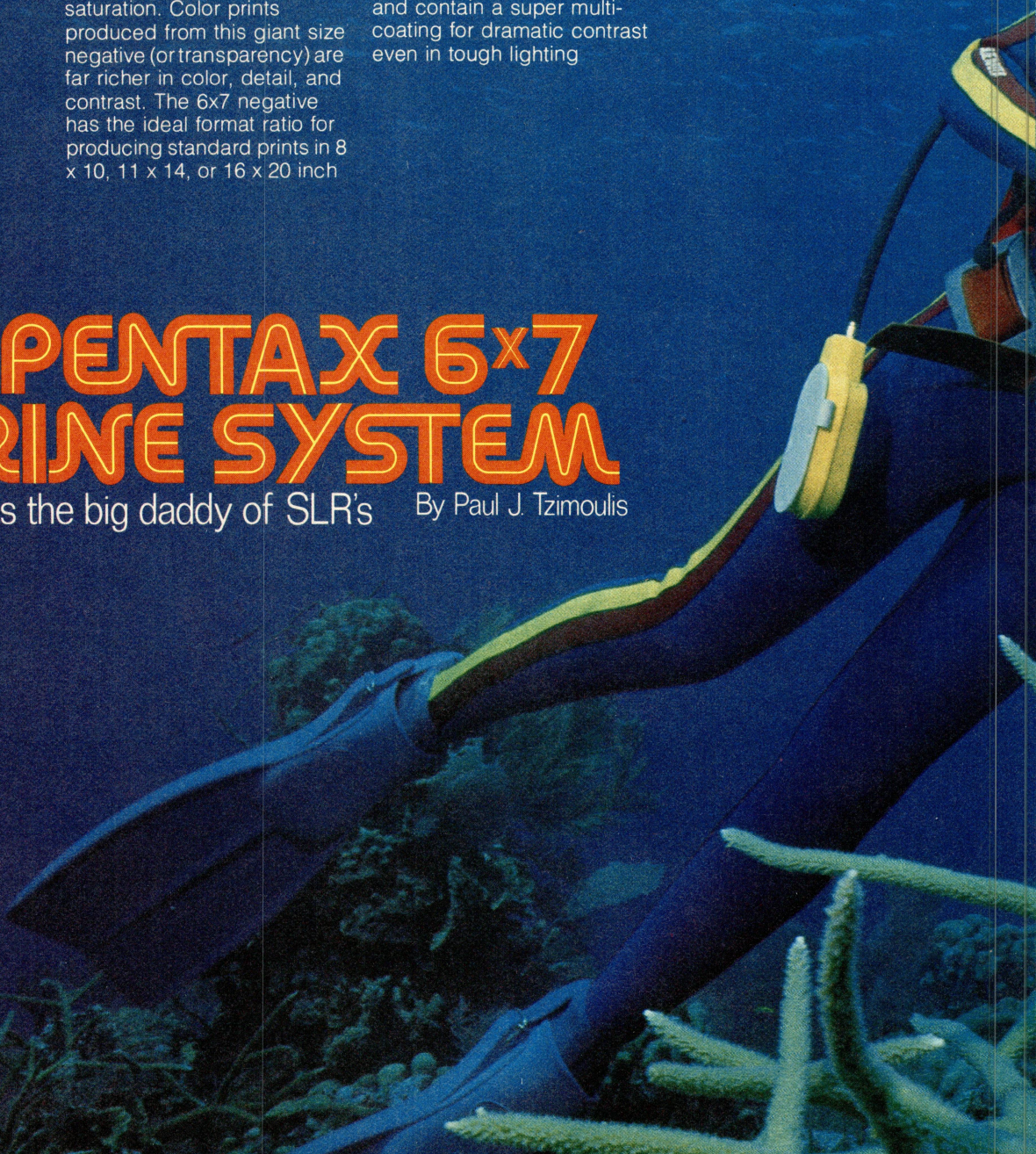
The final clincher is the wide selection of high quality lenses available for the 6x7. They range from fish-eye to telephoto, are sharp as a tack and contain a super multi-coating for dramatic contrast even in tough lighting

conditions. According to studio photographers I have interviewed, the Pentax 6x7 produces superb quality photos equivalent to or better than large format studio cameras.

Why is this large format so important? Anyone who has attempted to take professional quality photos underwater quickly realizes that the underwater environment is plagued with a variety of obstacles. Low ambient light levels, poor contrast conditions, turbidity and selective color filtration add

THE PENTAX 6x7 MARINE SYSTEM

Skin Diver tests the big daddy of SLR's By Paul J. Tzimoulis



up to a difficult challenge. It's like trying to take bright, crisp pictures in a smoke-filled room. Burdened with these environmental handicaps, the underwater photographer needs all the help he or she can get. The utilization of a

large format 6x7 negative may provide just enough edge to accomplish the photo mission. The Pentax 6x7 camera introduces a whole new world of camera technology to the struggling underwater photographer and provides a larger format than ever used before.

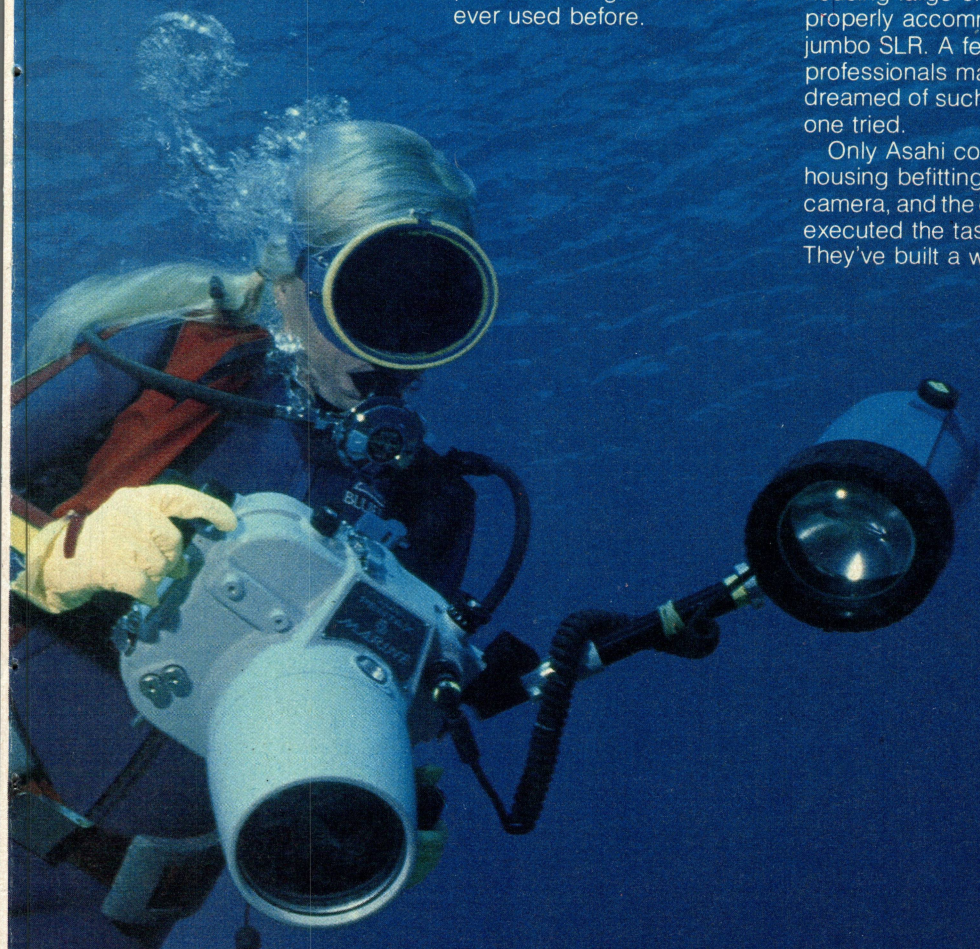
THE HOUSING

Although the Pentax 6x7 camera has been around for some years, no one dared to put it into a housing and take it underwater. It is too expensive for casual experimentation and there was no ready-made housing large enough to properly accommodate this jumbo SLR. A few advanced professionals may have dreamed of such a rig, but no one tried.

Only Asahi could design a housing befitting their fine camera, and the company has executed the task beautifully. They've built a well-crafted,

cleverly designed aluminum housing which affords easy operation of all vital controls such as shutter speed, focus distance, aperture and viewing. The housing is constructed of heavy duty aluminum alloy with wide mating flanges and extraordinarily reliable O-ring seals for watertight integrity. Front lens ports can be changed simply and quickly without worry of O-ring leakage. The rear door of the housing is held in place by four heavy-duty, spring-loaded cam locks and aligned perfectly by stainless steel guide pins. Although the manufacturer indicates a conservative operating depth of 163 feet, it looks as though this housing could go to 250 feet without difficulty. It is extremely rugged with thick walls and heavy-duty controls.

One of the most interesting aspects of the housing is a set of mounting plates which hold the camera solidly in place. It is precisely po-



These two pictures provide a comparison of the Pentax 6x7 Marine System format with that of a standard 35mm format. Pictures here are to actual scale. The diver (above) is using a Pentax 6x7 Marine System with a 135mm f4 Macro-Takumar lens to shoot the photo at right.



35mm format



6x7 format

photography by Paul Tzimoulis and Geri Murphy

sitioned by four guide pins and locked down by slide fasteners. The back door of the housing cannot be closed without these fasteners in lock position. The camera can be removed from the housing in a matter of seconds for a lens change.

The camera can also be unloaded and reloaded with film while inside the housing simply by removing the back door of the housing and opening the rear door of the camera. In the beginning, it takes a little practice to seat and thread a new roll of film but the process speeds up with experience.

As for operating controls, the shutter speed dial and cocking lever are mounted on the top of the housing, while the aperture dial is on the rear door. The trigger for the shutter is positioned on the right side of the housing, close to the hand grip, while the focusing knob is located on the left side close to the other hand grip. The shutter speed dial is calibrated for speeds ranging from 1 second to 1/1000th second. The aperture scale runs from f2.8 to f32, but is limited by the aperture range of the particular lens in use. There is a large glass viewport measuring 2½ inches in diameter on the back door of the housing for through-the-lens viewing. The housing also has threaded screw holes on the left side, top, and right front side for mounting various accessories such as flash arm brackets, optical viewfinders, underwater light meters, and so on. It seems as though the housing designer has thought of everything, and has made this housing compatible with most of the underwater photographic accessories currently on the market.

THE LENSES

The Pentax 6x7 Marine Housing is designed for use with three different lens ports and can accommodate seven different lenses. A pair of finely machined metal gear rings have been produced for each of the seven lenses, and all of them will mate with the basic gear mechanism in the housing. Any of these lenses can be quickly exchanged for another because of the bayonet mount system on the camera and the ease of changing the front port on the housing.

If your budget is limited, or you are just beginning to build a collection of Pentax 6x7 lenses, you'll be happy to know that three basic lenses will provide a wide range of photographic capabilities and will probably give you just about any type of picture you desire. Here are the three lenses worth considering:

The 35mm, f4.5 Takumar is a full frame fish-eye lens which provides 180 degree angle-of-view and an incredible depth of field. Its aperture range runs from f4.5 all

the way down to f22 and a minimum focusing distance of 18 inches. This fish-eye lens is equivalent to a 16mm fish-eye on a 35mm SLR camera. This lens would be used in the housing in conjunction with a special fish-eye dome lens port which provides the full 180 degree view. It is a perfect lens set-up for underwater pictures of people at close distances, shipwreck exteriors, whales at close range, submersibles, underwater

octopuses, and lobsters. This macro lens has a 36 degree angle-of-view, will focus down to a minimum of 30 inches and has a full range of aperture settings from f4 to f32. It is ideally suited for marine life close-ups and offers remarkable depth of field for its focal length. The 135mm macro lens requires a special, long barreled macro lens port so that the lens can be fully extended.

In addition to the three basic lenses so



habitats and other large objects. It is particularly helpful in limited visibility conditions where the photographer must work at ultra-close distances.

The 55mm, f3.5 Takumar is a wide-angle lens with a 78 degree angle-of-view. This lens is the equivalent of a 28mm for 35mm SLR's. It is designed to be used in conjunction with the standard lens port and a special compensation lens which corrects for distortion owing to refraction. It is an excellent lens set-up for underwater pictures of divers, grouper feeding scenes, manta rays, schooling fish, large sponge formations and coral reefs. The 55mm lens will focus down to 18 inches and has a range of aperture settings from f3.5 to f22.

The 135mm, f4 Macro-Takumar is an ideal lens for fish portraits, sparkling sponge close-ups, and full frame shots of small invertebrates such as crinoids,

far described, the Pentax housing will also accommodate four additional lenses. A 75mm and 105mm lens can be utilized with the long barreled macro lens port, thus providing longer focal length capabilities for U/W telephoto shots.

UNDERWATER FLASH

The 6x7 housing is equipped with two separate and different flash connector ports which offer the versatility of five different flash modes. The housing is compatible with practically every underwater flash made.

There is a Rollei-type bulkhead flash receptacle on the lower left side of the housing. This would accept a twin-prong open-circuit Rollei-type flashbulb arm. The B/C power pack would have to be mounted inside the housing.

There is a Nikonos III-type flash receptacle on the upper right side of the

housing front. This offers the choice of a Nikonos III-type flashbulb device (FP sync) or a Nikonos III-type strobe connector (X sync). You can also install a Nikonos III E/O adaptor which would allow the use of any strobe fitted with an E/O connector. If you have an old style Nikonos II flash connector, you can screw in a Toshiba adaptor for conversion to the Nikonos III connection.

THE VIEWFINDER

essential to your underwater assignment, you can purchase a special Marine Mirror Finder which was designed specifically for use with the Marine Housing. The Mirror Finder will give you a full frame view of the scene, but it has one disadvantage — the image will appear upside down and reversed. The choice of viewfinders is a personal decision but, frankly, I prefer the standard prism with the magnifier eyepiece.

quires flash fill photography, balanced with available light, you would have to switch to M sync and use flashbulbs. With flashbulbs, you can shoot at any shutter speed setting from 1/60th second to 1/1000th second.

The jumbo size 6x7 format does limit the number of pictures you can shoot per dive. You get 10 pictures on a roll of 120 film, but you can increase the number to 20 pictures by utilizing 220 film. While the number of photos per roll may seem small, the chances of getting a winner are far better.

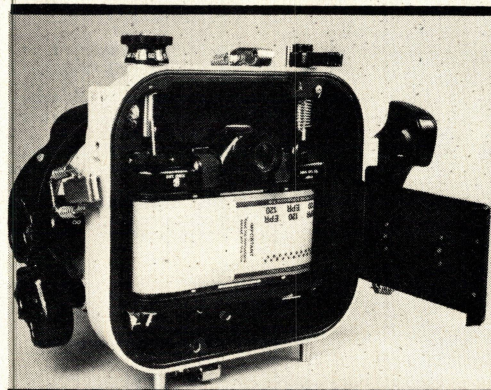
In this writer's opinion, the advantages of the jumbo 6x7 format and high quality lenses far outweigh any small faults described so far, and the results are most definitely worth the price. While this camera system may not be for everyone, it is a good investment for underwater photographers who have specific needs. It is not a toy for the casual enthusiast, but rather a professional photographic apparatus with a price tag to match. The cost of a complete Pentax 6x7 Marine System (with camera) can range from \$2500 to \$11,500, depending upon how many lenses, lens ports, and other accessories you decide to buy and the dealer you buy it from.

The Pentax 6x7 is a superior working tool for the professional photographer struggling to make a living with underwater photos. The large 6x7 format is highly desirable to magazine editors and advertising agencies. This big frame negative is ideal for producing underwater color posters, magazine cover shots, and professional quality advertising graphics. It gives the professional a competitive edge in selling his or her photographs.

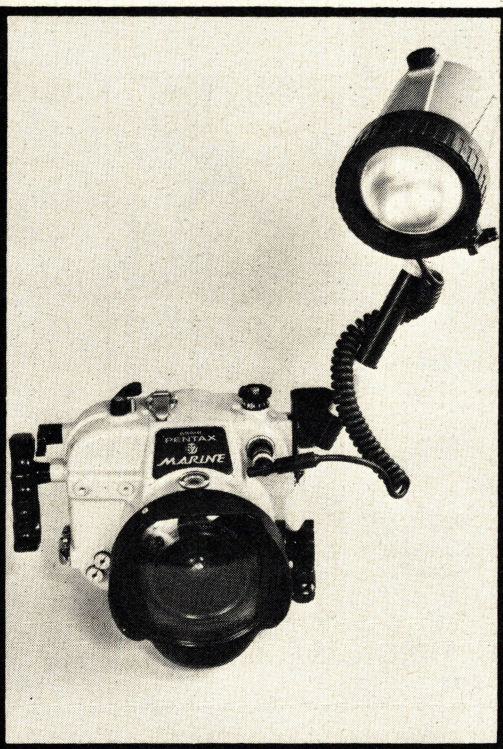
The 6x7 negative format is also ideal for the serious amateur photographer making his own color prints. A 6x7 negative has 21 percent more area than a 6x6 negative, but there is 50 percent more usable negative because of the more modern format ratio. It is a perfect negative format for color enlargements, underwater murals and salon quality prints for photo competitions.

Professional divers engaged in underwater research will find the Pentax 6x7 Marine System ideal for underwater photo documentation. The dependability of this unit and quality pictures it produces can provide an impressive display. Underwater scientists, marine technicians and commercial divers will find the Pentax 6x7 a pleasure to use.

For more information on the Pentax 6x7 Marine Housing, write to: Roger W. Barnaby, Product Specialist, Pentax Corporation, 98 Cutter Mill Road, Great Neck, New York 11021.



The Pentax 6x7 camera can be reloaded with film while still mounted in the housing (above). Tzimoulis set up his Pentax 6x7 Marine test with an Oceanic 2001 strobe and a Seacor arm and mounting bracket. An Oceanic Nikonos III E/O flash connector was used for greater versatility. The entire Pentax 6x7 Marine system (left) consists of a basic housing and a wide selection of different lens ports, lenses and through-the-lens accessories.



As with other primary components, Pentax offers several options for viewing the picture. There is a large 2 3/4 inch diameter viewport positioned at the top of the rear door on the housing, allowing good access to the viewfinder prism. The camera can actually be used quite well with a standard viewfinder prism and eyepiece which comes with the camera. However, the view can be greatly improved by substituting a special underwater magnifier eyepiece for the standard eyepiece. The switch can be done easily in a matter of seconds as it simply screws into the rear portion of the viewfinder prism.

It is important to note here that the standard viewfinder prism does not give you the full frame picture as seen by the lens. Because of the large 6x7 negative format, a small portion of the scene is omitted. If full frame viewing is absolutely

THE SYSTEM

While the Pentax 6x7 Marine System is close to being the perfect underwater camera, it is only fair to point out a few minor disadvantages the photographer must contend with. First of all, the housing is obviously larger and heavier than a 35mm SLR housing. The housing and camera weigh more than 20 pounds out of the water and are 2.2 pounds positive beneath the surface. For its size, the housing is remarkably well balanced underwater.

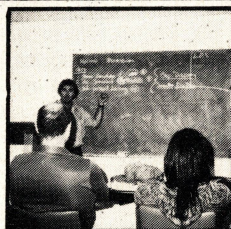
Because of its large negative format and focal plane shutter design, the Pentax 6x7 will only sync at 1/30th sec with underwater strobes. If you are using a strobe, you would be virtually limited to full flash photography such as fish close-ups, sponge shots, or deep water photography. If your assignment re-

ENROLLMENT VERY LIMITED.....

PADI INTERNATIONAL COLLEGE IN CALIFORNIA, INC.

BEFORE:

**Open Water Certified
Diver
(or equivalent)**



AFTER:

- * "Gold" PADI Open Water Instructor
- * Equipment Repair Instructor
- * Underwater Photography Instructor
- * Rescue Dive Instructor
- * Search/Recovery Instructor
- * Deep Diving Instructor
- * CPR Instructor
- * Water Safety Instructor
- * First Aid Instructor
- * Retail Dive Store/Operations/Management Specialist.
- * PADI International College Alumni Association
- * 10 Weeks of work and fun!

* By completing the course you will be PADI Master Instructor Qualified except for 2 years with PADI and 150 Student Certifications.



**1979 10-WEEK
SCHEDULE
DATES:**

May 21-July 27

July 30-Oct. 5

Oct. 8-Dec. 14

**CALL TODAY OR WRITE FOR ADDITIONAL INFORMATION:
(714) 223-9821**

PADI INTERNATIONAL COLLEGE IN CALIFORNIA, INC.

1310 ROSECRANS (Point Loma)
SAN DIEGO, CALIFORNIA 92106

ATTENTION: COMMANDER WILLIAMS

Name _____ Age _____

Address _____

City _____ State _____ Zip _____

- Send me info on: ☐ Master Instructor
☐ 10 Week Inst. ☐ 1 Week Inst.
☐ Master Scuba Diver ☐ Sales Promotion
For Dive Shop ☐ Inst. or Diver Specialty
Certifications ☐ Boat Charters
☐ USCG License Preparation

Notice: 1 Week Open Water Instructor Course convenes monthly.

DIVEMASTER™ DIGITAL DIVE WATCH

- TESTED TO 750 FEET ■ BRIGHT L.E.D. DISPLAY
- PERMANENT BATTERIES — NEVER NEED CHANGING
- PERMANENTLY SEALED LEXAN MODULE

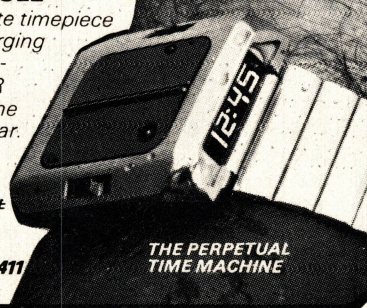
The DIVEMASTER is the most rugged and accurate timepiece ever made, featuring an integral solar battery charging system* and a unique edgeview display that automatically brightens in sunlight. The DIVEMASTER is programmed for adjustment-free operation to the year 2100 and accurate to within 8 seconds per year. Available in brushed stainless steel at \$129.95 or black ceramic finish at \$159.95. 2 year warranty.



LOOK FOR OUR DISPLAY AT YOUR DIVE
SHOP OR SEND FOR FREE BROCHURE
DEALER INQUIRIES INVITED

337 W. JOHN ST. /HICKSVILLE, NY. 11801/(516) 433-6411

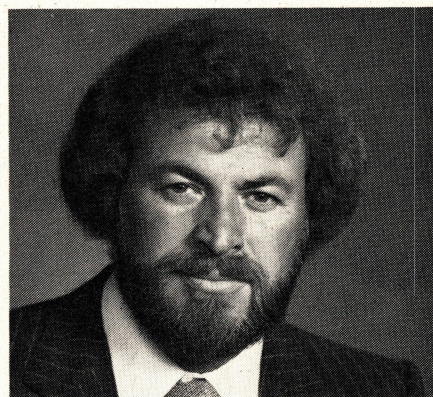
*Batteries will function for approx. one yr. of use without exposure to light.



THE PERPETUAL
TIME MACHINE

PPC APPOINTS PANICO

Ralph Panico has been appointed Western Advertising Director for Petersen Publishing Company, according to Senior Vice-President/National Advertising Director Jim P. Walsh.



This is a return to Petersen for Panico, who will be headquartered in the company's Los Angeles office. In the newly created position of Western Advertising Director, he will be responsible for all advertising sales in Petersen's 11 monthly special interest magazines in the 13 Western states.

Prior to being named to this position, Panico was with National Geographic Magazine in Los Angeles for two years. Before that, he was Western Advertising Manager for Petersen's SKIN DIVER Magazine for seven years.

ALFACAM U.S.A.

Alfacam U.S.A. has recently introduced its popular Alfamar 35mm format U/W camera to the American market. Designed and built by European craftsmen, the Alfamar's 50mm lens assures sharp pictures for novice or expert.

The Alfamar system features a fully integrated 35mm viewfinder camera in a rugged, compact, international orange, cast aluminum housing. The controls are designed for divers, with large, easily accessible film advance and shutter release levers. Shutter speed (B to 1/250) and f stop settings (2.8 to 22) are conveniently located and boldly marked for easy use. The prominent focusing ring sets camera to subject range between meter to infinity.

Complete system support is also available from Alfacam U.S.A. Alfacam offers a range of excellent European optics, from the 15mm wide angle lens to a 13cm close-up lens. Each lens is priced between \$90-\$300 retail. Optic and strobe sync fittings are Nikonos III compatible.

For further information, contact: Alfacam U.S.A., P.O. Box 1059, Topanga, CA 90290.

Seapro AT-PAC leaves you with time on your hands

There's no telling how much more you can get out of diving with more free time to use your hands. Take better pictures. Collect more marine life. Hold a steady bead on your catch. You may even find something strange to hold. And with the Seapro At-Pac you'll have room to hold it. No air bags sticking out in front. No sagging weight belt. No dangling straps and hoses. With the Seapro At-Pac everything is neatly tucked away on your back, with you in push-button control. Think about it. The Seapro At-Pac a simple, easy-to-use, integrated diving system — that just happens to leave you with more time

on your hands for better diving. Test dive the Seapro At-Pac at your local Seapro dealer. For the inside facts write Seapro, 18030 South Euclid Avenue, Fountain Valley, CA 92708 (714) 979-6730.

This coupon entitles you to one free lesson in the use of the AT-PAC. You will be contacted by your local dealer for time and place.

Name _____

Address _____

City _____ State _____ Zip _____

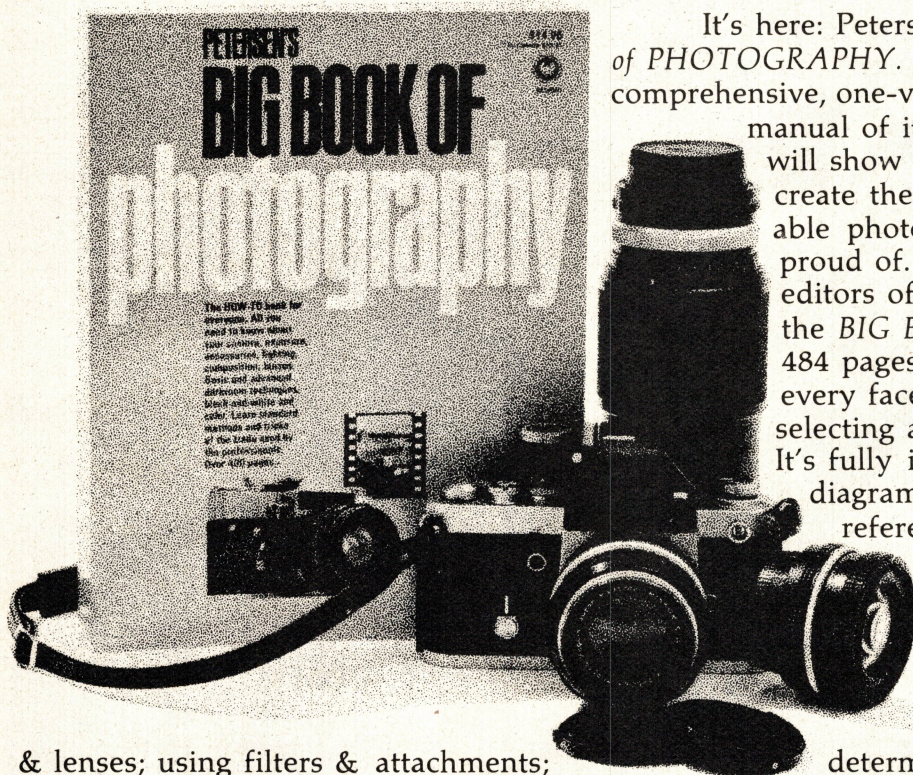
Phone _____

DEALERS: If you are interested in becoming an AT-PAC dealer, forward this coupon to Seapro and we will contact you.



Seapro A new company with a proven product line.

Take a shot at becoming a better photographer.



It's here: Petersen's *BIG BOOK* of PHOTOGRAPHY. The first truly comprehensive, one-volume photo manual of its kind that will show you how to create the kind of memorable photos that you'll be proud of. Written and compiled by the editors of Photographic Magazine, the *BIG BOOK* of PHOTOGRAPHY has 484 pages (15 in full color) that cover every facet of still photography—from selecting a camera, to displaying your work. It's fully illustrated with over 900 photos & diagrams and nearly 100 charts & reference tables. Every page of the *BIG BOOK* of PHOTOGRAPHY is geared to helping you expand your creative abilities.

Inside the *BIG BOOK* of PHOTOGRAPHY you'll find chapters on: choosing cameras

& lenses; using filters & attachments; determining exposure; working with light; composing your shots; creative darkroom techniques; printing & enlarging; retouching; mounting & displaying your photos; instant camera photography and more...

The *BIG BOOK* of PHOTOGRAPHY is the latest edition to the ever popular Petersen Photo Book Series. It covers everything—from the basics, to advanced creative works. The *BIG BOOK* of PHOTOGRAPHY techniques professional photographers use to create striking visual images—and it will save you hundreds of dollars and countless hours of frustration at the same time! Only \$11.95

You Get The Petersen "No-Risk" Guarantee

If you are not completely satisfied with the *BIG BOOK* of PHOTOGRAPHY, simply return it within 10 days for a full refund!

Yes! ☐ Send me my copy of Petersen's Big Book of Photography (4029-X) @ \$11.95 plus \$1.05 shipping & handling. (Calif. residents add 6%—72¢ sales tax).

My check or money order for \$_____ is enclosed.
TO AVOID DELAY—PRINT CLEARLY

Name _____

Address _____

City _____ State _____ Zip _____

All orders shipped within 4-6 weeks. This offer void 7/31/79. Also available at photo supply outlets and bookstores nation wide.

Petersen Books Dept. SD-5,
6725 Sunset Blvd., Los Angeles, CA 90028

PETERSEN PUBLISHING COMPANY**R. E. PETERSEN** / Chairman of the Board**F. R. WAINGROW** / President**ROBERT E. BROWN** / Sr. Vice President**DICK DAY** / Sr. Vice President**JIM P. WALSH** / Sr. Vice President, National Art Director**ROBERT MacLEOD** / V.P., Publisher**THOMAS J. SIATOS** / V.P., Group Publisher**PHILIP E. TRIMBACH** / V.P., Finance**WILLIAM PORTER** / V.P., Circulation Director**JAMES J. KRENEK** / V.P., Manufacturing**JACK THOMPSON** / Assistant Director, Circulation**NIGEL P. HEATON** / Director, Circulation Adm. and Systems**LOUIS ABBOTT** / Director, Production**DON McGLATHERY** / Director, Research**AL ISAACS** / Director, Graphics**BOB D'OLIVO** / Director, Photography**DAVID HOLZGANG** / Director, Ad Adm. and Systems**MARIA COX** / Director, Data Processing Services**ADVERTISING OFFICES****LOS ANGELES**

Ralph Panico, Western Ad Director

8490 Sunset Blvd

Los Angeles, CA 90069

Phone (213) 657-5100

NEW YORK

Bob Berg, Eastern Ad Director

437 Madison Avenue

New York, NY 10022

Phone (212) 935-9150

DETROIT

Edward McLaughlin, Detroit-Cleveland Ad Director

333 W. Fort St. Building, Suite 1800

Detroit, MI 48226

Phone (313) 964-6680

CHICAGO

Richard Holcomb, Chicago Ad Director

John Hancock Center

875 N. Michigan Ave., Suite 3131

Chicago, IL 60611

Phone (312) 222-1920

CLEVELAND

Dewey F. Patterson, Branch Mgr

Bond Court Building, Suite 1001

1300 East 9th Street

Cleveland, OH 44114

Phone (216) 696-7900

ATLANTA

Dale Naeft, Branch Mgr

615 Peachtree St. N.E., Suite 414

Atlanta, GA 30308

Phone (404) 876-0781

DALLAS

Jeff Young, Branch Mgr

800 W. Airport Fwy., Suite 201

Irving, TX 75061

Phone (214) 253-1157

PETERSEN ACTION GROUP

Ralph Panico/Western Advertising Director (Los Angeles)

Robert Berg/Eastern Advertising Director

Edward McLaughlin/Detroit-Cleveland Advertising Director

Richard Holcomb/Chicago Advertising Director

Dewey F. Patterson/Cleveland

Dale Naeft/Atlanta

Jeff Young/Dallas

THE MAMIYA 645*(Continued from Page 19)*

wide-angle to the 80mm, f2.8 normal-angle, and, is convertible to accept the dome lens port for macro/fixed focus photography. A simple system of metal strap brackets provides support for two large handgrips under the housing, and left/right strobe units. Accessory attachments, including night light, safety belt, note pad, light meter, tripod mount, or whatever, can be added on to the main bracket with flat head or eyelet type nuts and bolts.

I used a single, Vivitar 283 strobe, in an Ikelite housing, set for maximum output on manual operation. I found with the use of the Ektachrome 400 and a shutter speed of 1/60 second that generally, under bright daylight circumstances, I could balance light sources at a depth of 30 feet using f11-f16. In other words, the illumination of my subject approximately five feet from the camera was perfectly balanced with the available light around the subject.

In summation, I think the M645 is a winner, with a long future in underwater photography. For all intents and purposes, the M645 has what it takes, in or out of the water. That kind of versatility in a camera is not easy to come by. For more specific information on the Mamiya M645 write to: Bell & Howell/Mamiya Company, 7100 McCormick, Chicago, Illinois 60645. >

These numbers prove Coastal is #1

For Commerical Diver Training

30

This is Coastal's 30th year of training deep sea divers. Compare our years of experience. No other school comes anywhere close.

\$1,295

Lowest tuition in the industry for our Basic Air Course. Our Mixed Gas, Bell / Sat and Chamber Operators Course tuition is

\$1,595. Combined they total \$2,890. Compare. Why pay more than necessary at the other schools?

11½

In only 11½ weeks you'll complete our Basic Air Course because we work 8 to 4 o'clock daily. Add 4 more weeks in our Mixed Gas, Bell / Sat Chamber Operators course and you'll be a well-trained diver. Compare Coastal with any other school that takes up to six months!

5,500

We have trained more than 5,500 students for careers in commercial deep sea diving, more than any school. Our graduates are at work world-wide.

#1

Put these numbers together with Coastal's unmatched facilities and training equipment and the result is Coastal is your #1 choice for deep sea diver training.

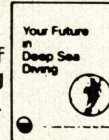


Avoid Imitators!
No other school
is a branch or
affiliate.

The Coastal School of Deep Sea Diving

320-29th Avenue, Oakland, CA 94601

Get the full story. Send for a copy of
Your Future in Deep Sea Diving
Include \$2 for handling. No obligation.

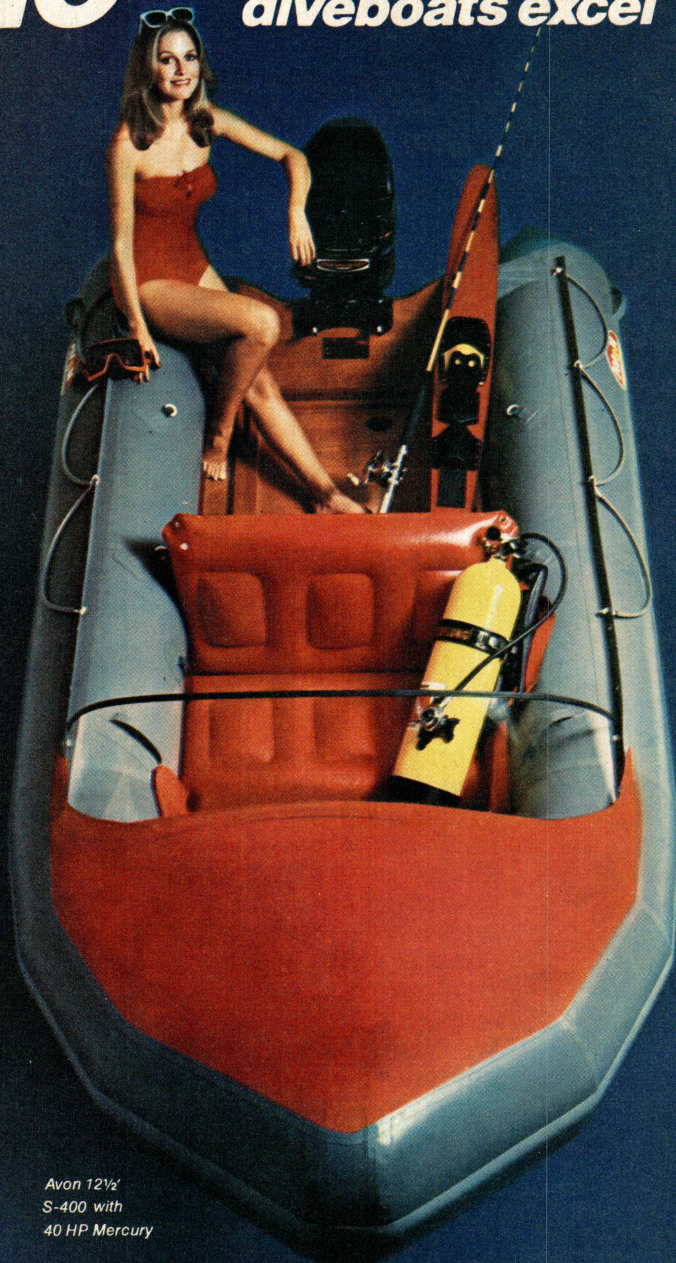


Name _____

Address _____

City _____ State _____ Zip _____ SD-59

10 ways Avon diveboats excel



Avon 12½'
S-400 with
40 HP Mercury

- 1** Dive boat, tender, ski boat, work boat, all in one
- 2** Your family is safe in a stable buoyant Avon
- 3** Inflatable keel for seakindliness and maneuverability
- 4** Pneumatic hull can't damage yacht topsides
- 5** Neatly stows out of your way, in locker or closet
- 6** Assembles easily and in a hurry
- 7** By design, carries greater loads at faster speeds
- 8** Designed and built by world's largest and most respected inflatable maker
- 9** British craftsmanship at its finest
- 10** Tough Nylon/Hypalon fabric guaranteed for 5 years

There are 19 Avon models for you. Write or phone for complete color brochure and nearest dealer.

AVON diveboats

Imtra Corp. 151-N24 Mystic Ave., Medford, Mass. 02155 • (617) 391-5660
Inland Marine. 79-N24 Jackson St., Wilkes-Barre, Pa. 18701 • (717) 822-7185
Seagull Marine 1851-N24 McGaw Ave., Irvine, Calif. 92705 • (714) 979-6161

Shows'n Events

May 4-5 9th Our World-Underwater, Raddison-Chicago Hotel; Sat., Film Festival, Medinah Temple Auditorium, 8 pm (Contact: Our World-Underwater IX, PO Box 4428, Chicago, IL 60680)

May 13 2nd Annual Scubarama, Wm. Legros Recreation Centre, Ajax, Ont., 1-5 pm (Contact: Don Sellers, 1908 Poppy Ln, Pickering, Ont., Canada L1V 2V7 416-839-8531)

May 18-20 YMCA U/W Activities Convention, Casa Marina Inn, Key West, FL (Contact: Nat'l YMCA Center for U/W Activities, PO Box 1547, Key West, FL 33040)

May 19-20 Seaspace '79, University Center Bldg., Univ. of Houston, 9 am-5 pm (Contact: Dick Zingula, PO Box 4362, Houston, TX 77210)

May 26-27 11th NSS Cave Diving Safety Workshop, Branford Women's Club, Branford, FL (Contact: J. Friend, 2220 NW 55th Blvd. #22, Gainesville, FL 32601)

June 15-17 Oceans 79, Monash Univ., Melbourne, Victoria, Australia. Speakers, Sir Robert Marx, Dr. Paul Dayton, J. McNulty, Ron & Val Taylor (Contact: Peter Stone, The Oceans Society of Australia, PO Box 4604, GPO Spencer St., Melbourne, Victoria, Australia 3001)

Sept. 15 2nd Vision 360, an Int'l Diving Symposium, State College, Buffalo, NY (Contact: D. Edmiston, Vision 360, PO Box 842, Buffalo, NY 14221)

DIVE SHOP OPENS IN KENNEWICK, WASH.

Eason's Marine Service, Divers Headquarters of Olympia, Washington, has announced the opening of its new store and training facility in Kennewick, Washington. In addition to sales and service of all major lines of equipment, the new facility will specialize in advanced diver programs and U/W photography instruction.

The Divers Headquarters is a sanctioned PADI International Training Facility, and will be serving divers in eastern Washington and northeastern Oregon. The facility is under the management of Alex F. Brylske, a PADI/NAUI instructor, who will be assisted by Ms. Deborah Street. For information, contact: Eason's Divers Headquarters, 8300 Gage Blvd., Box 408, Kennewick, WA 99336.



"And you never open to strangers!"

THE BEST. EVER. ANYWHERE.

SeaJacket.

The best vest ever for performance, comfort and looks.

Very simply, the best buoyancy system ever engineered.

Why?

Because it lets you move *naturally*—both head and arms, with minimized "ride-up." Your own tank straps, crotch strap and side-adjustment straps "mold" the vest to your body, while drastically reducing "squeeze."

Because it has a Rapid Exhaust System unparalleled in the industry, one of the most important diving developments in decades.

Because it is equipped with the world-famous SeaQuest® Low-Pressure power inflator.

Because it gives you exactly the trim position you want, when you want it.

Because it's made of extra heavy-duty mate-



rials, with an easily-removed, thick-polyurethane inner bag.

Because it has goodies like two large pockets with a key ring holder in each, Velcro straps to hold your gauge in place, and an all new Octa-pocket™ to hold your octopus 2nd stage.

Because it's back mounted, and nowadays that's where it's at.

Because it goes with any standard backpack.

Because it *looks* just as good as it *is*.

It's the best.

And it costs very little more to go first class.

CO₂ optional. Two color combinations. Two sizes. For more information on our complete line of buoyancy compensators visit your pro-

fessional dive store or send \$1.00 for our full color catalog and sew-on emblem. SeaQuest, Inc., 722 Genevieve St., Solana Beach, CA 92075, USA, (714) 755-5196. Rann, Inc., 2835 Ualena St., Honolulu, HI 96819, (808) 836-3557. Seaway Manufacturing, Ltd., 17919 Roan Place, Surrey, British Columbia V3S 5K1, (604) 576-9424.

SEAJACKET BY

seaQuest®

A Reliable Buddy. The **SUNPAK**® Marine 28

When the picture really counts, take the rugged and dependable Marine 28 Electronic Flash with you. It's made by Sunpak, one of the world's largest manufacturers of electronic flash equipment.

The Marine 28 is designed for use with all Nikonos models as well as with Ikelite underwater camera housings. It features a swivel head that positions the light precisely where you want it—recessed reflector—a quick-release bracket—oversized controls—a slight negative buoyancy—and even a safety leakage warning signal.

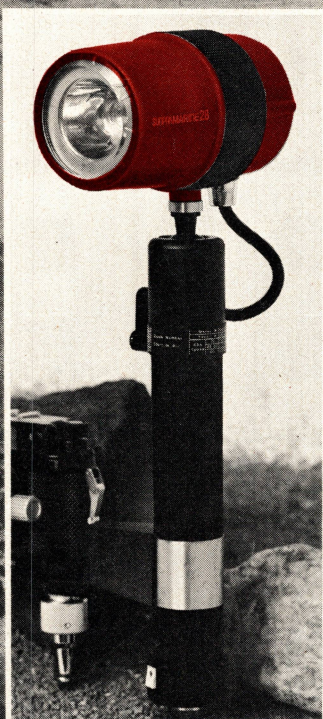
With an underwater Guide Number of 44 for ASA 400 film—the unit can reach as far as 16 feet with a f/2.8 lens. Powered by six AA cells, the Marine 28 recycles as fast as 3 seconds and operates to a depth of 326 feet. The Marine 28 is supplied with battery cartridge, clamp, bracket and grease tube. System accessories include rechargeable nicad battery cartridges, a charger for all models, and a slave unit for the Nikonos-III model.

See the Marine 28 at your photo dealer and dive shop—or write for Sunpak's "An Invitation To Electronic Flash Photography."



**Sunpak Division,
Berkey Marketing Companies**

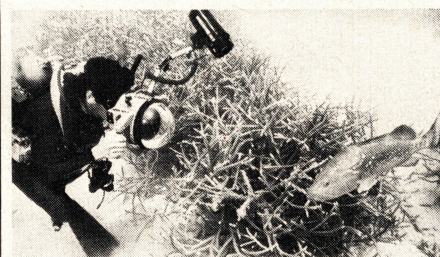
Box 1102, Woodside, N.Y. 11377 • 1011 Chestnut St., Burbank, Ca. 91506 • In Canada:
Sunpak Corporation of Canada, Ontario



Film Festivals 'n Symposiums

NATIONAL YMCA CONVENTION

Be sure to bring your dive gear to the National YMCA's 1979 Underwater Convention in Key West, Florida, May 18-20, 1979. Before and after all the general sessions, technical paper presentations, workshops, art and photographic shows, exhibits, parties, divewear fashion show, and film festival, there are



photograph by Don Kincaid

special scuba trips scheduled and even a snorkeling treasure hunt. Plan to stay for a tour of historic Key West and the National YMCA Center for U/W Activities.

For information, contact: National YMCA Center for Underwater Activities, P.O. Box 1547, Key West, Florida 33040. Or phone (305) 294-5288.

OUR WORLD- UNDERWATER

The ninth annual production of Our World-Underwater will take place May 4-6, 1979, at the Raddison-Chicago Hotel, Chicago, Illinois.

On Friday, May 4th, a cocktail party and reception will be held for speakers, guests and interested attendants. After the reception, the First Decompression Stop party will be held in the hotel pool.

On Saturday, May 5th, a series of seminars will begin at 9:00 am. "The Diver and the Sub-Aquatic Environment" will feature Dr. Glen Egstrom, Jeanne Bear Sleeper, Dennis Graver, and Robert Smith. "The Sea and Its Occupants" will be hosted by Smokey Roberts, Rod Anton, Dick Jacoby, and Lynn Funkhouser. "Dive The World" takes you to the in places divers go. "Phantoms Of The Fathoms" will feature Captain John Steele on the wreck dives of Silver Lake, Fred Stonehouse on the Isle Royal Survey; Bill Lovin on the *Monitor*; and Chip Cooper on the Grave of the *U-853*. The final seminar, "Etc., Etc., Etc.," is a collage of topics — wrecks, recoveries, dive equipment, and special features. Afternoon programs include "You And Underwater Medicine," sponsored by the Northwestern University School for Sports Medicine.

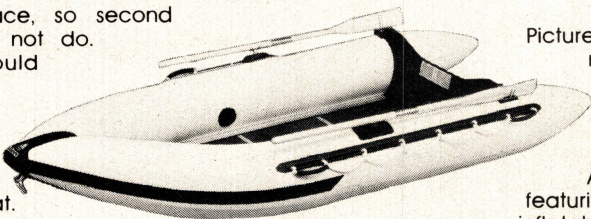
On Saturday evening a gala film festi-

SERIOUS ABOUT DIVING?
HERE IS ONE NAME YOU SHOULD GET TO KNOW.



Dependability is probably the most important factor in a diver's decision to purchase equipment. There is no room for failure under the surface, so second best will not do.

You should feel the same about the high seas and your boat.



Pictured is the newest of the line, the Super Airone featuring an inflatable keel.

Callegari of Italy is a name Europeans have come to depend on since 1932; now you can too.

Both our designers and craftsmen have sought to attain one standard throughout the line of 16 inflatables — quality. Every

detail is meticulously cared for from the 8 ft. Dinghy to the 28 ft. Oceanic "World's Largest Inflatable."

The Super Airone is a rugged 13 ft. long, yet weighs a mere 94.6 lbs. Floorboards are marine grade plywood coated with non-skid paint. A complete boat cover is just one of many accessories available. The Super Airone is priced at \$1,050.

Distributor/Dealer inquiries invited. Write for a free brochure - Western Importer/Distributor.

British Motor Car Distributor, Ltd.
901 Van Ness Ave., San Francisco,
Calif. 94109, 415-776-7700

val will be hosted by Paul Tzimoulis, editor-publisher of SKIN DIVER Magazine. Highlights of the evening's entertainment include: Al Giddings, unveiling Ocean Trust's worldwide research vessel *M/S Eagle* and his newest National Geographic film *1300 Feet Below*, Bill Lovin's exciting film *Beneath The Killing Sea*, Ozzie Wisel's newest film *Guns and Garlands*.

On Sunday, May 6th, a series of "How To" workshops will be held on subjects ranging from U/W photography to Marine Cooking and Collecting.

The cost of this exciting weekend program is \$21. Our World-Underwater has reserved rooms at the Raddison-Chicago at special rates of \$30 for a single or a double (almost half the normal price). For tickets and information, contact Our World-Underwater, Box 4428, Chicago, IL. Or call (312) 539-4644. >>>

MARINE WILDERNESS PHOTO COMPETITION

The Marine Wilderness Society will accept entries for its 1979 Marine Wilderness Photography Competition until September 1, 1979. With cash prizes for the top winners and awards for each of several categories, this marine ecology oriented competition is being made possible through the generous support of City National Bank in Miami, Florida.

The competition is open to all amateur photographers. Marine related photography may be entered in several categories including: Birds of the Sea, Marine Mammals, The Coral Jungle, Our Coastal Wetlands, In Between Tides, and The Open Ocean. Entries may be submitted as color slides, monochrome prints, or color prints.

Judging will be completed by October 1, 1979. Entries will be judged by a three-member panel composed of a nationally recognized marine photographer, a traditional artist and experienced art show judge, and an acknowledged marine conservation leader. The top three entries in each category will receive attractive awards. The two photographs judged Best of Show will each receive a \$100 savings bond.

All award-winning entries will be assembled into a traveling display which will be shown at each City National Bank branch. This public exhibition is intended to heighten the public's awareness of our marine environment and deepen concern for its preservation.

The Marine Wilderness Society is an organization dedicated to the protection of our marine environment from pollution, overexploitation and abuse. Its international membership is currently active in marine environmental campaigns from the Hawaiian Islands to the Caribbean.

For complete competition rules and official entry forms, send a stamped, self-addressed envelope to: 1979 Marine Wilderness Photography Competition, The Marine Wilderness Society, P.O. Box 943, Miami, FL 33165. >>>

Enjoy Photography



where winter never comes.

Beginning in the Fall of 1979, Florida Institute of Technology in Jensen Beach will be offering a new degree program in Photography.

We were among the first to develop programs in Oceanographic and Environmental Technology. Our programs in Aquaculture and Underwater Technology are the only ones of their kind anywhere. This year we are proud to announce three new degree programs — Photography, Petroleum Technology and Engineering Technology — will begin in Fall 1979.

For more information, complete and return the coupon below. F.I.T. admits students of any race, color or national or ethnic origin and does not discriminate on the basis of handicap in admissions or access to its program.

Florida Institute of Technology

Office of Admissions

1707 N.E. Indian River Drive
Jensen Beach, Florida 33457

Name _____

Address _____

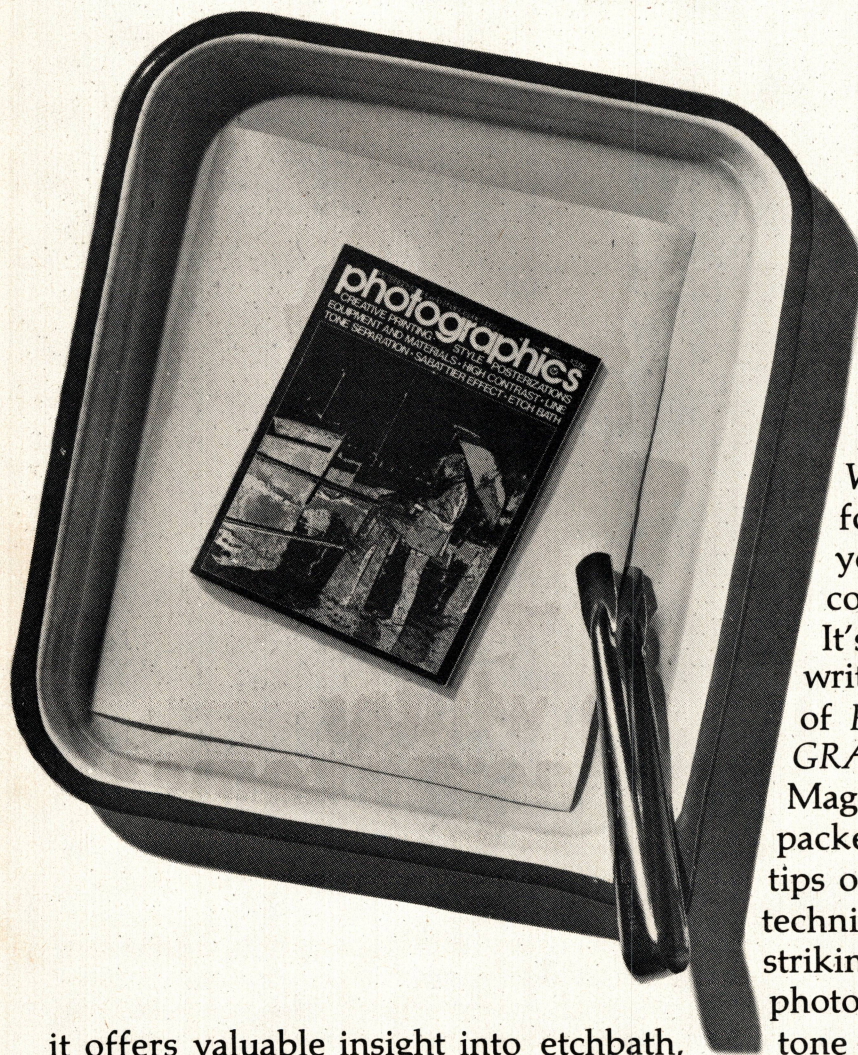
City _____ State _____

Zip _____ Phone _____ Age _____

Transfer Student Information _____

SDRP050579

A GREAT DEVELOPMENT FOR PHOTOGRAPHIC SUBSCRIBERS.

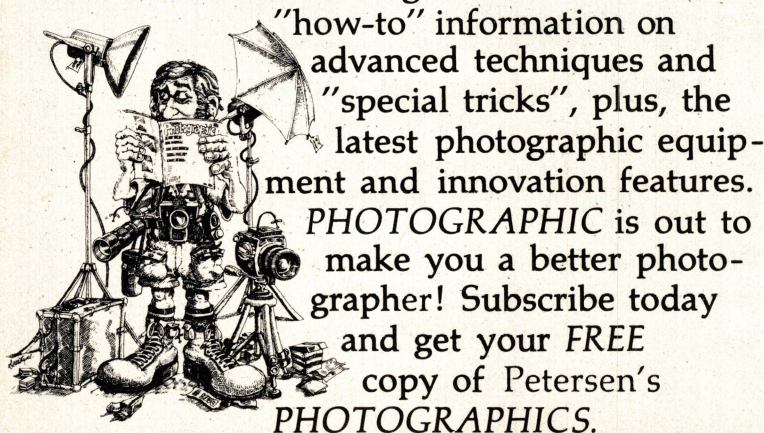


Develop yourself
into a better
photographer
with this
exclusive offer
from Petersen's
PHOTOGRAPHIC
Magazine.

When you subscribe
for one year
you'll receive **FREE** a
copy of Petersen's **PHOTOGRAPHICS**.
It's an incredible and concise volume,
written by the editors
of **PHOTO-**
GRAPHIC
Magazine,
packed full of
tips on graphic
techniques to create
striking and unusual
photos. In addition,



it offers valuable insight into etchbath,
ization, and many other effects. A \$3.95 value- **YOURS FREE!** At the same
time you'll be developing your photographic skills even further. Each month,
PHOTOGRAPHIC Magazine offers valuable



"how-to" information on
advanced techniques and
"special tricks", plus, the
latest photographic equip-
ment and innovation features.
PHOTOGRAPHIC is out to
make you a better photo-
grapher! Subscribe today
and get your **FREE**
copy of Petersen's
PHOTOGRAPHICS.

Please ☐ enter or ☐ extend my subscription to
PHOTOGRAPHIC for 1-year at the regular low
subscription rate, and send me a copy of Petersen's
PHOTOGRAPHICS at no additional cost.
☐ My \$10.95* payment is enclosed.

G24

Name _____

Address _____

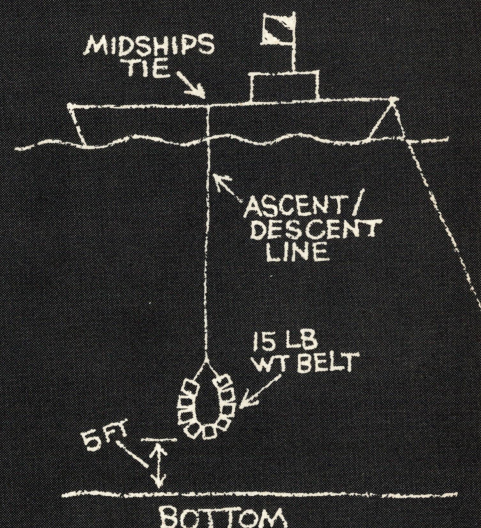
City _____ State _____ Zip _____

*U.S., Territories & Military only. Other countries add \$3 per year for postage.
Offer expires July 31, 1979. (Please allow us up to 60 days to get the premium
and the first copy of a new order into the mail. Watch for them!)

Photographic
MAGAZINE

6725 Sunset Blvd., P.O. Box 3414 Los Angeles, Ca 90028

SDM SCUBA QUIZ



Category: U/W Line Use

By Dennis Graver

Divers work with lines a great deal in, around and underwater. Knowledge of types of line and precautions in use increases diving safety. Test what you know about line use by answering the following questions. The answers are on the next page.

1. Which of the following statements about line is false?

- ☐ A. Nylon line stretches less than natural fiber line
- ☐ B. Knots tend to weaken line and cause tangling
- ☐ C. New line tends to foul due to shrinkage
- ☐ D. Line is best cut underwater with a serrated edge

2. Which type of line floats in water?

- ☐ A. Manila
- ☐ B. Sisal
- ☐ C. Polypropylene
- ☐ D. Hemp

3. The optimum point of attachment to a boat for a descent/ascent line is at the:

- ☐ A. Bow
- ☐ B. Stern
- ☐ C. Middle
- ☐ D. Gunnet

4. Select the primary value of a descent line in limited visibility:

- ☐ A. A guideline to the dive site
- ☐ B. A signal line to the surface
- ☐ C. Securing line for surface float
- ☐ D. A reference line for orientation

5. The proper position for a diver underwater in relation to the anchor line of a boat is:

- ☐ A. On top of or in front of the line
- ☐ B. Below or behind the line
- ☐ C. On either side of the line

6. The recommended method of using a buddy line is to:

- ☐ A. Tie it to your tank harness
- ☐ B. Tie it around your wrist
- ☐ C. Hold it in your hand
- ☐ D. Wrap it around your hand

7. If you and a buddy are using a buddy line and the line becomes snagged, you should:

- ☐ A. Free the snag and swim around the obstacle on your buddy's side
- ☐ B. Wait for your buddy to free the snag and swim around the obstacle on your side
- ☐ C. Ascend to free the snag and swim over the obstacle
- ☐ D. None of the above

8. With a buddy line, the signal to another diver to stop is:

- ☐ A. One tug on the line
- ☐ B. Two tugs on the line
- ☐ C. Three tugs on the line
- ☐ D. Four tugs on the line

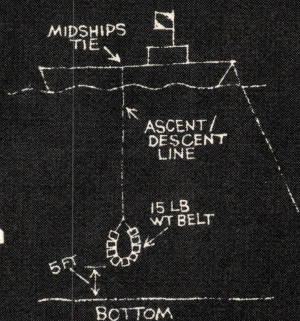
9. If you should become entangled in line while underwater, the recommended action is to:

- ☐ A. Cut yourself free with your knife
- ☐ B. Ascend and free yourself
- ☐ C. Have your buddy free you
- ☐ D. Jettison your weightbelt

10. If you pass by a line in the water, entanglement can most likely be avoided if you will:

- ☐ A. Duck beneath the line
- ☐ B. Push the line beneath you
- ☐ C. Pull the line completely to one side
- ☐ D. Swim to the end of the line and go around it

SDM SCUBA QUIZ



Answers: U/W Line Use

1. **A. Nylon line stretches less than natural line.** False! Nylon line is very stretchy and tends to twist and kink more than natural line. Natural line loses up to 50 percent of its strength when saturated, however, and is slippery when wet. Different types of line are used for various needs.
2. **C. Polypropylene.** As a general rule, natural fiber line tends to sink and synthetic line tends to float. Manila is among the heaviest and polyethylene is about the most buoyant. Again, the type of line selected will depend on your needs.
3. **C. Middle.** As a boat pitches up and down from swells passing by, the axis of the boat is the point of least vertical movement. Therefore, the best place to secure a line for descending, ascending, or emergency decompression is at this axis point.
4. **D. A reference line for orientation.** Disorientation in midwater between the surface and the bottom is a serious problem in turbid water. The problem can be prevented by providing a reference.
5. **C. On either side of the line.** You can be hurt by the upward movement of an anchor line caused by a boat moving up on a swell, and can be entangled in the line if you get beneath it or allow it to get behind you. It is safest to remain to one side and keep the line at arm's length.
6. **C. Hold it in your hand.** You can get into some real jams with a buddy line attached. Being able to instantly release the line is desirable, but you don't want it to slip out of your grasp. A knot or knob on the end of the line is recommended.
7. **D. None of the above.** There is no standard procedure, but it is important for you and your buddy to agree on what to do when a snag occurs. Plan your procedure and simulate it for practice *before* a dive.
8. **C. Three tugs on the line.** In diver-to-diver signals, one tug means "OK," two means "Go," four means "Surface," and five or more means "Emergency, or Come here quickly." All signals should be answered when received.
9. **C. Have your buddy free you.** Your first action should be to stop and the second to figure out the problem. The next step is to take action, and by then your buddy should be checking on you. If your buddy leaves you behind, work slowly to free yourself. Removing gear is OK, but don't make yourself buoyant, because this can make things worse.
10. **B. Push the line beneath you.** You pass over entanglements easily if your regulator is kept clear and if you depress the obstacle until your waist has passed over it. Keep your tank valve area away from any line, as this is the most likely area for entanglement and the most difficult to free by yourself.

How much do you know about line use? You probably use lines in diving more than you realize. (The rope kind, not the "Haven't we dived together somewhere before?" kind). You can learn more about this practical topic in seamanship classes and search and recovery courses. The more you know, the smarter you dive. Keep learning and keep diving.

CREDENTIALIALS

**COMMERCIAL DIVERS NEED THEM . . . SO DO
COMMERCIAL DIVING SCHOOLS!**

- CHECK **D·I·T** CREDENTIALS
 - COMPARE **D·I·T** ACCREDITATIONS
 - INVESTIGATE **D·I·T** CURRICULUM
- . . . JUDGE FOR YOURSELF
WHO'S BEST QUALIFIED
TO TRAIN YOU RIGHT!**

D·I·T is accredited by Accrediting Commission of The
National Association of Trade and Technical Schools.

APPROVAL AND MEMBERSHIPS

Approved by:

Department of Health, Education & Welfare (HEW)
The Council on Post Secondary Accreditation (COPA)
Veterans Administration
Social Security Administration
Comprehensive Employment & Training Act (CETA)
Department of Vocational Rehabilitation (DVR)
Bureau of Indian Affairs (BIA)
Washington State Commission for Vocational
Education for Veterans Training

Member of:

National Association of Trade and Technical Schools
Association of Commercial Diver Education (ACDE)
Association of Diving Contractors (ADC)
Institute of Diving (IOD)
Washington Association of Trade and
Technical Schools (WATTS)
Chamber of Commerce of the United States
Better Business Bureau (BBB)

D·I·T was founded and is staffed by men who know how to train you to work efficiently in and around the sea. Our record of training excellence allows employers to hire our graduates with confidence. Send \$2.00 for our catalog. See how to enroll in a highly sophisticated six-month professional deep sea diving course which covers all facets of the industry. Our catalog contains full disclosures including course outline, employment statistics, instructor qualifications, tuition refund policy, standards of progress, financial assistance available, etc. An eligible institution for student loans and grants. **WRITE TODAY!**

D·I·T

DIVERS INSTITUTE OF TECHNOLOGY, INC.
1133 N.W. 45TH ST. • DEPT. SDM 5
P.O. BOX 70312 • SEATTLE, WA. 98107
(206) 783-5542

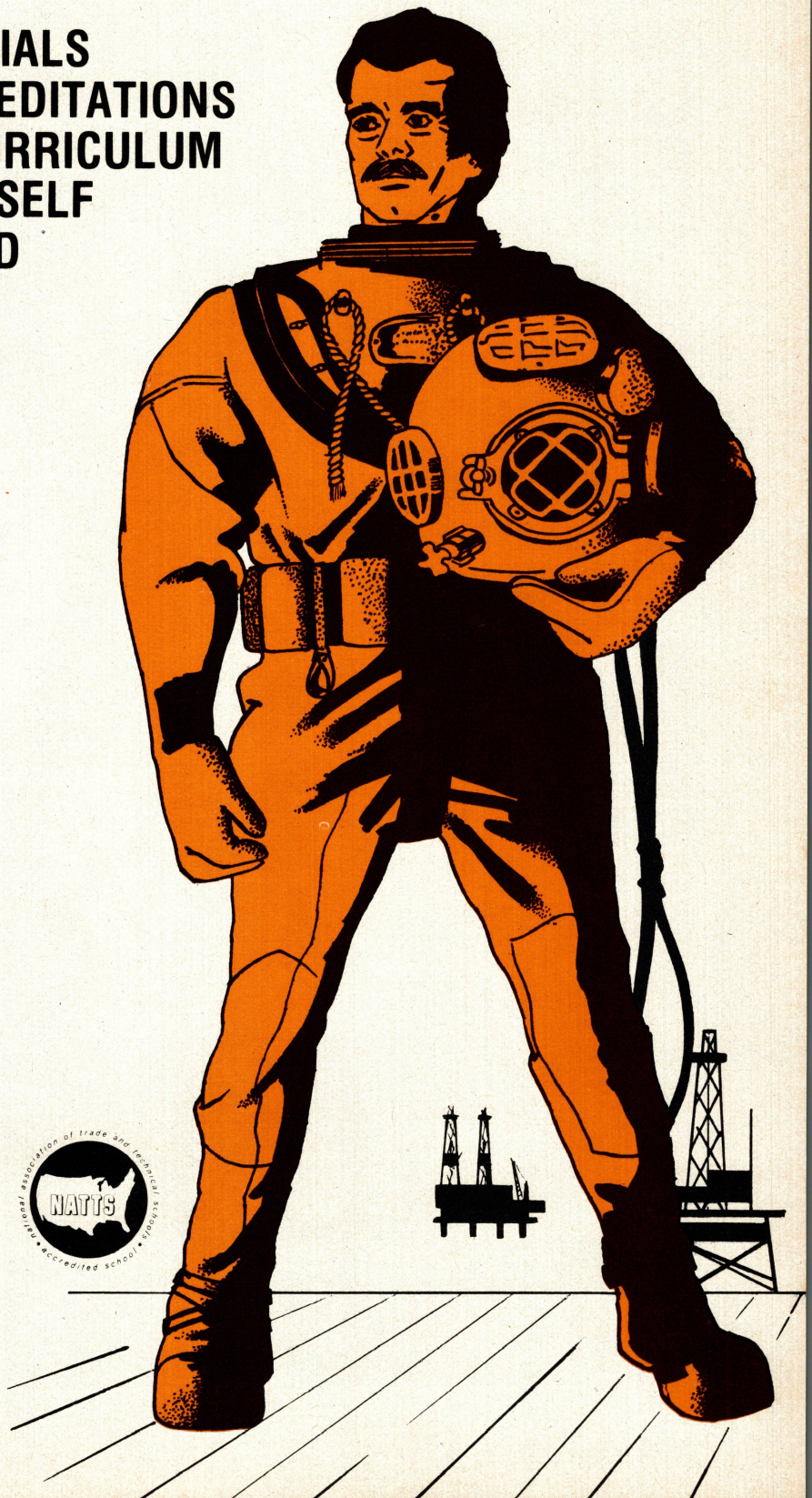
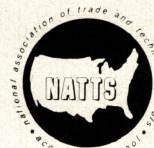
NAME _____

ADDRESS _____

CITY _____

ST. _____

ZIP _____



the purpose of this article is to help you improve your underwater lighting techniques with one or more strobes. We will assume that you have a working knowledge of the basics — ASA film speeds, f stops, shutter speeds and strobe equipment — and will concentrate on the finer points of exposure and lighting techniques.

BALANCING STROBE AND SUNLIGHT

At apparent distances of about three feet or more, sunlight may overpower the strobe and determine the aperture setting. To determine the correct exposure, compare an exposure meter reading from the subject with the aperture setting from your strobe exposure table. If the meter and exposure table indicate different apertures, the general rule is to set the lens for the *highest-numbered* aperture of the two.

If you want a light, midwater background which appears natural, you can deliberately reduce the amount of strobe exposure. For example, begin with an exposure meter reading for a sunlight exposure — let's assume an f8 — and set the lens for this aperture. Then, hold the strobe back to the f5.6 distance indicated by the strobe exposure table, and you end up with a sunlight exposure with strobe fill to accent details and color.

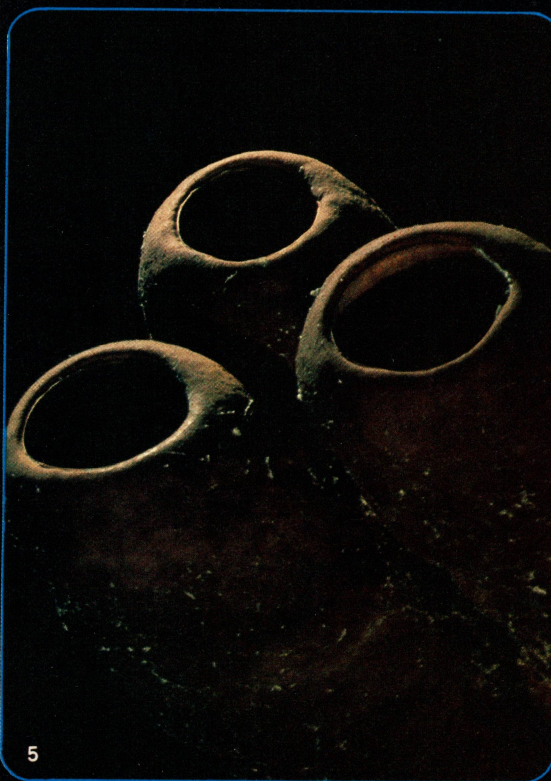
You can also darken the background if your strobe has enough power. Begin with the exposure meter reading for the sunlight exposure, but set the lens for one stop less exposure than the meter indicates — for example, f11 if the meter indicates f8. Hold the strobe at the f11 distance from the subject, and you will have a colorful near subject separated from the underexposed background. With Ektachrome films in blue water, this one stop underexposure creates a rich, royal blue.

AIMING THE STROBE

Because of the suspended particles in the water, the position of the strobe is extremely important. When the light from the strobe strikes suspended particles, it is reflected back to the source. And, if the strobe is near the camera, the light reflected back from the particles also strikes the camera lens. This backscattering causes little



creative strob



1. A single, narrow-beam strobe is used to show the hermit crab peering out of its home.

2. One strobe is used to backlight the small anemone to outline and accentuate the translucent white tentacles.

3. Working as a team, Gordon Riddle uses a Vivitar 292 strobe while Cathy Church assists with an Oceanic/Farallon 2000.

4. Two strobes create combined front and side lighting to illuminate two Cassiopeia (upside-down jellyfish).

5. Combined front and back-lighting: One strobe illuminates tube sponges from the front, the other rimlights from behind.

e photography text and
photography by
Jim and Cathy Church

Cliff Hollenbeck Photos

Now you can get beautiful display prints that do justice to your best 35mm slides. Retinachrome specializes exclusively in Kodak "Type R" color printing. "Type R" allows us to make brilliant prints with unsurpassed color saturation and contrast. And they're made directly from your 35mm color transparency - no costly internegs, no flat "third generation" look.

You get the same high quality and fast service that we've become famous for. And, because we specialize *exclusively* in "Type R", we can offer you all of this at remarkably low prices.

Don't wait. It's easy to show your best. Just complete the order form below and return it along with your original transparencies. You can charge your order on your VISA or MasterCard. To get complete information and your free order packet, call us at (206) 364-1638. Do it now. We'll make you brilliant, beautiful prints *directly* from your brilliant, beautiful slides.

Price List

	Unmounted Print	Mounted Print	Print Mounted & Framed	General Matte Spray add
8x10	1.95	3.45	8.25	.30
11x14	4.00	6.50	10.95	.60
16x20	9.00	13.50	17.95	1.25
NEW full frame panorama prints from 35mm.				
11x16	5.00	8.00	14.25	.75
16x24	7.25	12.25	18.25	1.45

We give you a choice of free texture! Silk, Canvas or Glossy

Send orders and enquiries to: Retinachrome, P.O. Box 30579, Seattle, WA 98103

One texture per order, please.

Mount your print on durable multiply artboard for long-lasting protection.

The finishing touch — your print, displayed in a handmade mahogany floater frame.

Protect your print and stop glare
with fine lacquer spray.

You may charge your order to VISA or Mastercard if you include card number, expiration date and your signature as it appears on the card. Shipments sent UPS or First Class Mail. 1.75 minimum postage on all orders. Foreign orders 2.00 extra. Please enclose 1.00 additional for framed prints. Air Mail Special Delivery 3.00 additional. Washington residents add 5.4% sales tax. Please enclose check or money order. U.S. funds or exchange, please. No C.O.D.s.

This offer expires July 31, 1979.

charge it... ☐ Mastercharge ☐ VISA

[illegible]

WA Residents add 5.4% sales tax
1.75 Shipping
add 1.00 for each Framed print
Total enclosed. (No C.O.D.)

[illegible]

x _____
Signature - as it appears on credit card.

Cropping **Texture**

☐ Standard ☐ Canvas ☐ Glossy

☐ Full Frame ☐ Silk ☐ Matte Spray

☐ Please send order packet

Retinachrome

Post Office Box 30579
Seattle, Washington 98103

Name _____
Address _____
City _____
State _____ Zip _____

bright spots in underwater pictures.

There are two basic techniques for minimizing the amount of back scatter that reaches the camera lens:

1. Aim the strobe at an angle of about 45 degrees to the subject so the light cast back from the particles is not reflected directly toward the lens.

2. Aim the strobe so the beam of light cuts just in front of the subject to avoid illuminating the particles between it and the camera lens.

Aim the strobe at the subject's actual position — not the subject's apparent image as you see it! Because of refraction at the air/glass/water interfaces of your facemask, U/W subjects appear to be one-fourth closer than they really are. Thus, a subject which appears to be three feet away is really four feet away. And if you are looking at the subject through your sportsfinder, and aiming the strobe by the "feel" of the strobe arm in your hand, your hand-eye coordination automatically aims the strobe at the subject's *apparent* position. Therefore, the beam of light may pass between the camera and the subject's actual position. The symptoms you will see in your pictures will be underexposed subjects with brightly-illuminated particles in the foreground. This problem of aiming at the apparent image is greater with narrow-beam

(Continued on Page 54)

6. A single strobe, used for extreme side lighting, accents the oval patterns of these tube sponges.

o **7. A second strobe, providing fill lighting from the right, softens the shadow details of this vase sponge.**

8. Extreme side lighting with a single narrow-beam strobe accents the stinging tentacles of the fire coral.

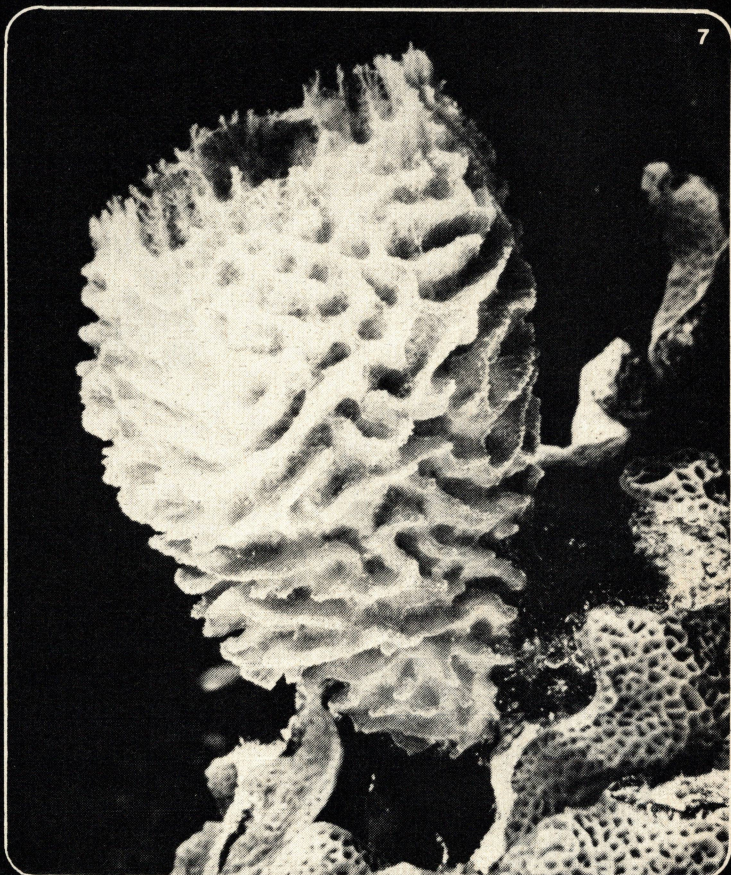
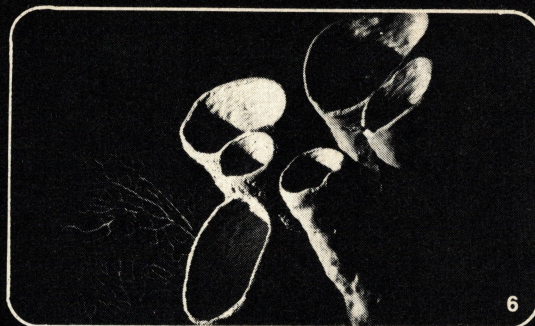
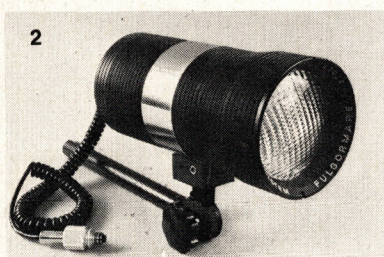
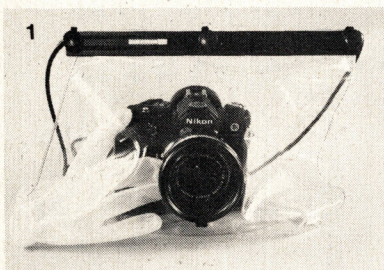


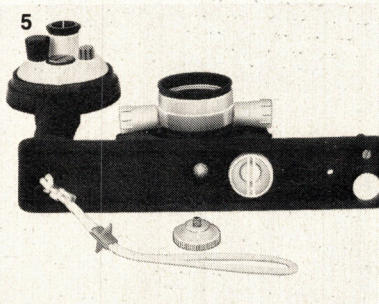
Photo Gear



1 Ewa-Marine Flexible Camera Housing — Protects your camera from sand, water or dust. The tough, double-laminated plastic bag has two optical glass lenses and is closed by waterproof stainless steel rails. Pressure tested to 30 feet. About \$50. From Pioneer & Co., 900 Haddon Avenue, Collingswood, NJ 08101.

2 Quasar 160 Strobe — A powerful U/W strobe with both slave and sync switch. It has a 160 watt-sec effective rating and emits 3200°K light. Sync cable and bracket arms are available for both the Alfamar and Nikonos III U/W cameras. Strobe, \$510; sync cable, \$74. From Alfamcam USA, P.O. Box 1059, Topanga, California 90290.

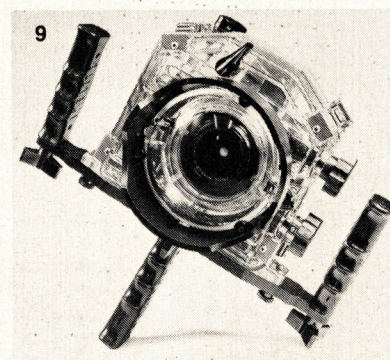
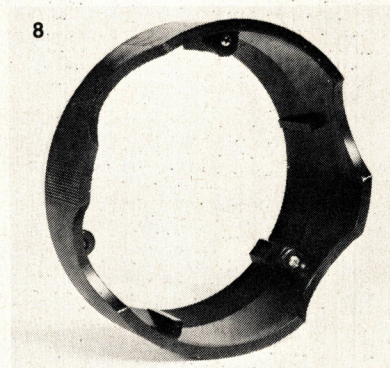
3 Oceanic Viewfinder — Designed for use with the Nikonos system. It mounts in the shoe atop the Nikonos camera and has optics to enlarge the existing Nikonos viewing system. It provides for accurate composition of U/W photos with nearly every dive mask. \$59.95. From Farallon/ Oceanic. At your dive shop.



4 Minolta XG-7 — A compact automatic 35mm SLR designed for photographers at all levels of experience. It features automatic aperture control, with a manual override to permit exposure adjustments, and a unique "feather touch" electromagnetic shutter release. \$482. From Minolta. At your local Minolta dealer.

5 Camera Accessory — A tripod nut (catalog #27HC10) for locking the Nikonos I, II or III to the Beall mounting bracket (#27HC8). Made of stainless steel with a large plastic knob, it screws into the camera's tripod thread. \$4 plus 50¢ shipping. Glenn Beall Ind., 887 S. Rte 21, Gurnee, IL 60031.

6 Kodak Extramax Pocket Camera — Offers existing light picture-taking capability with 110 size, 400 speed film. It has a high shutter speed for action photography and a built-in electronic flash for extended versatility. It uses two AAA size batteries. \$91.95. Available at your nearby Kodak dealer.

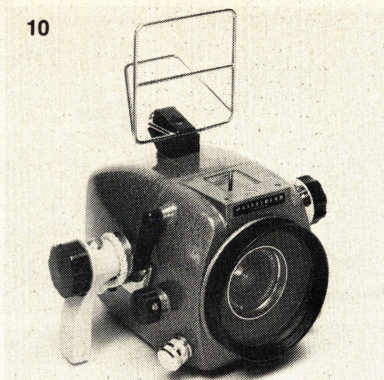


7 Subsea Strobe Adaptor — Designed for the U/W photographer who needs the flexibility of the Oceanic ball joint arm in combination with Subsea electronic strobes. Adapter is made of lightweight aluminum and does not interfere with strobe or arm. \$16.95. From Undersea Cameras, 955 East Rand Road, Des Plaines, Illinois 60016.

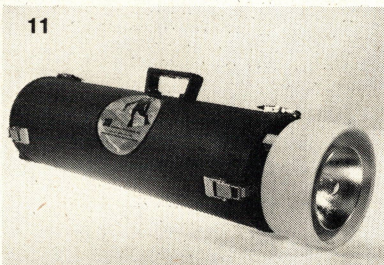
8 Dome Port Shade — Easily installed on existing dome ports, the shade adds extra protection for the dome and also blocks extraneous light from entering the camera lens. The shade can be used with lenses as wide as 17mm without vignetting. \$12.95. From Ikelite, 3303 N. Illinois St., Indianapolis, IN 46208.

9 Ikelite SLR-MD Case — Specifically designed for SLR cameras with motor drive and motor winder units. Allows for through-the-lens viewing and behind-the-lens metering. Utilizes an interchangeable port system. \$299.95. From Ikelite, 3303 N. Illinois St., Indianapolis, IN 46208.

10



11



12

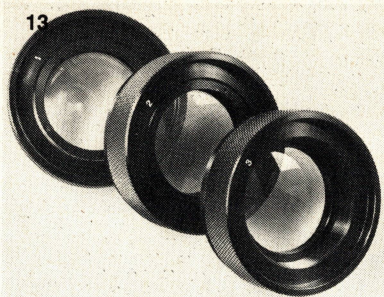


10 Hasselblad U/W Housing — Designed for use with the SWC. It has a frame viewfinder for the 38mm Biogon C lens and can also be adapted for use with the Hasselblad 500 C/M. Weight in water with the SWC is 47 ounces (1.3 kg). \$1845. From Braun North America, Photo Div., 55 Cambridge Parkway, Cambridge, MA 02142.

11 Tini Brute U/W Light — Made especially for the U/W cinematographer. It can be easily attached to the camera housing and emits a powerful 350 watts of 3400°K light. Burn time is 30 minutes per charge. Uses 30 volt ni-cad cells. Charger is included. \$875. From Sea Research/Bosco, Box 589, Bartow, FL.

12 Modular Movie Lite — Can be mounted to any Ikelite movie case. A modular handle and #4308 bulb can be added for conversion to the Ikelite Super Lite. Ni-cad battery supplies constant voltage for 12 to 14 minutes before it needs recharging. \$174.95. From Ikelite, 3303 N. Illinois St., Indianapolis, IN 46208.

13



14



15

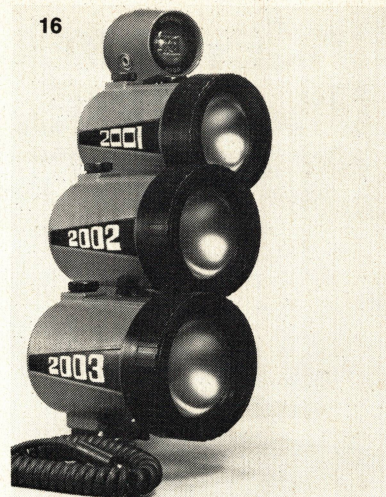


13 Close-Up Lenses — For use with the Nikonos III or Alfamar 35mm cameras, these high quality correcting lenses can be attached to the camera while underwater. Each of the three lenses shown, the 13cm, the 18cm and the 36cm lens, is priced at \$90. From Alfamar USA, P.O. Box 1059, Topanga, California 90290.

14 Alfamar 35mm U/W Camera — Comes with integral aluminum housing and a 50mm main lens with f2.5 to f22 range. It features an automatic frame counter and a flash contact identical to that of the Nikonos III. Tested to 300 feet. Camera and housing, \$299. From Alfamar USA, P.O. Box 1059, Topanga, California 90290.

15 Wide Angle Beam Spreader — Fits all models of the Sonic Research SR 2000 strobe. For use with extreme wide angle lenses or for soft lighting, it widens the beam about 20 degrees more than normal and can be slipped on and off underwater. \$12.95. From Sonic Research, Inc., 5111 Santa Fe St., Suite H, San Diego, CA.

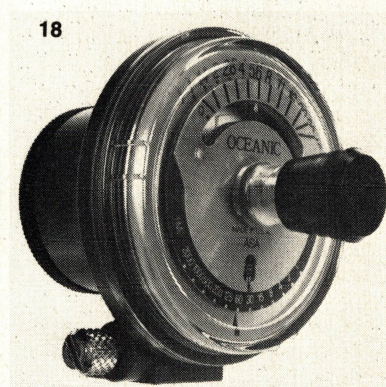
16



17



18



16 2001 Slave Strobe — Incorporates all the features of Farallon/Oceanic's reliable 2001 submersible strobe with the advantage of a built-in slave function. A flip of the switch and the unit will fire in conjunction with a camera-fired strobe. Rechargeable, \$525. From Farallon/Oceanic. At your nearby dive shop.

17 U/W Color Video System — Adds a new dimension to U/W inspection. The hand-held camera operates in low light and both video and voice are taped on an integrated tape recorder. The system will accept multiple power sources including its own internal battery. \$13,300. From Kinergetics, Incorporated, 6029 Reseda Boulevard, Tarzana, California 91356.

18 Oceanic Light Meter — Allows you to set your ASA, adjust shutter speed and f stop all underwater. The brushed metallic dials are easy to read, and the built-in bracket provides mounting on virtually any photo system. It's accurate and reasonably priced. \$94.50. From Farallon/Oceanic. At your dive shop.

Underwater. Under\$245.



The new Fujica Marine-8 AX100. The camera is even more amazing than its price.

First, a unique combination of fast lens, wide shutter, and higher-speed Fuji color film lets you take clearer pictures with less light than ever before. A clear advantage underwater.

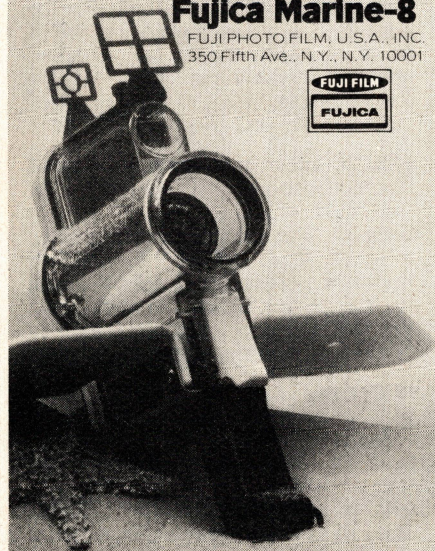
Next, almost foolproof operation. Lightweight compact design. And a rugged underwater housing (pressure resistant down to 40 meters) complete with stabilizer fins.

Finally, easy removal from casing. So when you come up for air, you have a superb "home" movie camera.

Fujica Marine-8 AX100. It's at your local Fuji Movie Center today. And at our price, it'll be in the oceans of the world tomorrow.

Fujica Marine-8

FUJI PHOTO FILM, U.S.A., INC.
350 Fifth Ave., N.Y., N.Y. 10001



CREATIVE STROBE

(Continued from Page 51)

strobes which can miss the subject entirely. Wide-beam strobes give a greater margin for error because they light a larger area, but may illuminate more particles in the foreground.

The solution is simple: Whenever you are aiming the strobe by the feel of the strobe arm in your hand, and are keeping your eye on the subject, aim for a point one-third behind the subject. By aiming behind this apparent image, the beam of light should intersect the subject's actual position. And in dim light, you can fasten a small dive light, such as a Super-Q, to the strobe with tape or a commercially available bracket. Thus, you can see exactly where the strobe is aimed without having to take your eyes from your subject.

BEAM ANGLE

Most of the smaller submersible strobes have U/W beam angles which cover the picture angle of a Nikonos 35mm lens, and sometimes the 28mm. We refer to these as being narrow-beam strobes because their beam angles are significantly less than the larger, wide-beam submersibles which have U/W beam angles of 90 degrees or more.

Housed conventional strobes also have narrow beams; and unless an accessory widener/diffuser is used, the U/W beam will become even narrower when the strobe is housed. Which beam angle is best — narrow or wide — depends largely on your subjects and picture area. We will be referring to the best uses of each through this article.

LIGHTING CLOSE-UPS

Narrow-beam strobes are often preferred for close-up U/W photography because the light can be directed to a limited subject area. For example, a narrow-beam strobe may be used to spotlight a hermit crab peering out of the entrance to its shell home. The darker areas behind the shell would help frame the tiny subject. You can use extreme side lighting to isolate a tiny fish — such as a spotted drum — without lighting a cluttered background or the suspended particles between the fish and your camera. Or, you might use a wide-beam strobe to light both the subject and its background for a textbook documentary shot showing the fish in its habitat.

ADDING A SECOND STROBE

However, because the shadow areas are sometimes too harsh with single-strobe lighting, a second strobe is often used to fill in some of the darker

NAUI INSTRUCTOR TRAINING COURSES

May 14-25

Carbondale, IL

May 26-June 3

Canandaigua, NY

June 8-16

Freeport, Grand Bahama

June 9-17

Houston, TX

June 15-23

San Diego, CA

June 18-29

Ann Arbor, MI

July

Mexico

August 10-19

Chicago, IL

August 10-19

Norfolk, VA

Aug. 24-Sept. 1

Santa Cruz, CA

September 1-8

Melbourne, FL

September 7-15

Port Townsend, WA

**Join The Leader,
NAUI
785 Colton Ave.
Colton, CA 92324**

☐ Please send me a complete info packet.
I want to become an instructor for the
National Association of Underwater In-
structors.

Name _____

Address _____

City _____ St. _____ Zip _____

The Diver's Dashboard ... the place you look to check your gauges.

At
Sportsways
we keep it
simple
to keep it
safe!

Sportsways believes in simplicity and small, easy to manage size. Our Diver's Dashboards hold the essentials — our Sea-Vue Gauge and oil-filled depth meter. A strap slot on the back of the Dashboard will accommodate our new #1415 oil-filled compass or your favorite extra small piece of equipment.

The Model 1400 on the left includes the #1409 Sea-Vue Gauge and the #1405 Depth Meter. The Model 1500 on the right includes our famous #1408 Super Sea-Vue Gauge and #1405 Depth Meter.

Both Dashboard models are available without Sea-Vue gauges to accommodate your existing #1408, #1409, or similar sized tank pressure gauges.

Send \$2 for the 1979 Sportsways Catalog

SPORTSWAYS WATERLUNG

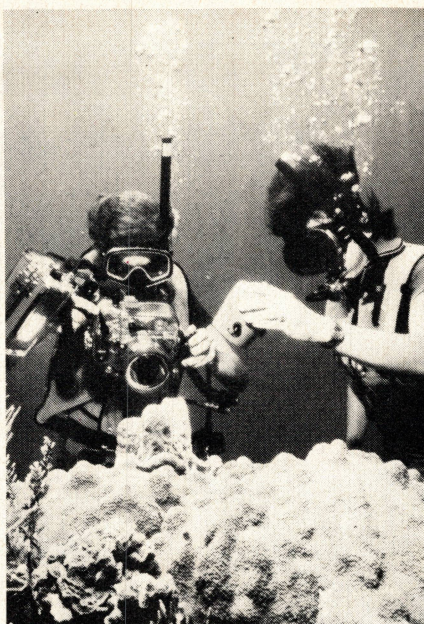


P.O. Box 2407 • 2050 Laura Avenue • Huntington Park, California 90255 • (213) 587-4173

CREATIVE STROBE

areas. The fill strobe should be about a half or full stop weaker than the main strobe. Its job is to soften harsh shadow areas, not to create additional shadows of its own. Begin by placing the main strobe in the position you would normally use for single-strobe lighting, then aim the second strobe in from the other side. As long as the main strobe throws more light on the subject than the fill strobe, base your exposure calculation on the basis of the main strobe only. But if you have two strobes illuminating the same subject area with equal intensity, close the aperture by one stop more than you would normally use with one strobe.

As you gain experience with the second strobe, you may try placing it behind the subject to rimlight and outline details. This backlighting technique works best with subjects which are translucent, or which have many fine surfaces or details which will show up in silhouette. However, be careful that the beam of light doesn't strike the camera lens directly and cause flare or reflections. You can use hands or fins to partially mask the beam while backlighting close-up subjects, or may hide the second strobe behind a solid part of the subject.



You can also use the second strobe for extreme side-lighting to accent details such as the oval openings in sponges or ridged surfaces of brain corals. A narrow-beam strobe can be used to spotlight a close-up subject, and a wide-beam strobe can be held back to spread light over the entire picture area.

Experiment with all angles, and with one and two strobes — lighting is a key element of composition.

TEAMWORK PAYS OFF

For diving spouses, adding a second strobe to the system allows both of you to become actively engaged in U/W photography. One person operates the camera and one strobe, while the other holds the second strobe. We frequently use this technique when taking our U/W pictures, especially diver portraits and wide-angle shots where the two strobes are often several feet apart. Once, while we were photographing a nurse shark sleeping in a small tunnel under the coral, Cathy held a slave strobe behind the shark, out of sight at the rear entrance to the tunnel. Other times, one of us will hold both strobes as the other concentrates on SLR focusing for close-up work. Teamwork can not only improve your lighting techniques, but can often make U/W photography more enjoyable.

WIDE-ANGLE STROBE LIGHTING

Wide-angle lenses often require wide-angle lighting techniques and equipment. A single wide-beam strobe can be aimed downward at an angle of about 45 degrees from in front and above the camera. This spreads light across the horizontal 35mm picture area, but limits the choice of lighting angles.

A single wide-beam strobe can be aimed from the side, usually downward and inward from the left side. While this is a common technique, there will be dark areas in the right side of the picture.

How You Can Increase Diving Visibility By 50% And See Colors Underwater Without The Aid Of Artificial Light.

Thanks to an amazing optical breakthrough, you can increase your diving visibility by 50% or more and see clear, sharp colors underwater without the aid of artificial light — whether you wear glasses or not.

If you've dived before, you know at 50 feet, even in the finest diving waters, without artificial light, your visibility is a murky blue-green.

But, with the Clearoptic Super-Visibility Lens you see sharp, clear colors you've never seen before.

How Clearoptic Super-Visibility Lenses were developed for divers.

John Todd of John Todd Optical Company, the largest optical company in Ohio, has been diving around the world for years. He has never been satisfied with the decreased visibility of ordinary masks.

Putting his 20 years of optical know-how and his full-time staff of opticians and his laboratory to work, he set out to develop a low cost, personally fitted diving mask that would give any diver optimum visibility, at any depth, in any kind of water.

How Clearoptic Super-Visibility Lenses capture light to increase color perception.

Clearoptic Super-Visibility Lens is made with a special yellow glass. Since this special yellow is in the middle of the color range which the human eye can perceive, the lens captures and magnifies all available light.

Your eye receives thousands more color impulses than it would with an ordinary face mask lens. This increase in color impulse absorption allows you to retain up to 80% of normal color perception — underwater!



What you would see with an ordinary face mask.



What you would see with a Clearoptic Super-Visibility Lens.

I would like to take advantage of your ONE TIME OFFER for prescription yellow faceplate lenses. Enclosed find \$40 check/money order plus COD and handling. I will allow 6-8 weeks delivery.

- ☐ Non Prescription.
☐ Prescription encl., PD No. and Mask.

NAME _____

ADDRESS _____

CITY _____ ST. _____ ZIP _____

PHONE _____

Clearoptic

LABORATORIES INC. UNDERWATER DIVISION
4420 Beldon Village St. NW, Canton, Ohio 44718
Phone 1-216-492-1043

SDM31

**HOW YOU
CAN GET
CLEAROPTIC
SUPER-VISION
LENSES
FOR YOUR
PERSONAL
DIVING MASK**

A man with dark hair and a mustache is standing on a large piece of weathered driftwood. He is wearing a bright red, full-body wetsuit with a zipper down the front and a small circular logo on the left chest. He is looking off to the side with a slight smile. The background shows a calm blue ocean under a clear blue sky. In the distance, a city skyline is visible on the left, and a small boat is on the right.

The Big "J"

The Jack Suit (for men) and the Jill Suit (for women) are two new, outstanding additions to the Imperial line of wetsuits. These one-piece Jump Suits offer the utmost in comfort and convenience. Made of either King Turtle or Glowflex material, (shown here with available arm zips) the Jack and Jill Jump Suits are built tough. All seams are sewn inside and out with finished edges, and triple-bonded with neoprene glue. They're an excellent choice for any diver's wardrobe. See the Jack and Jill in our new 1979 Imperial Catalog. Send one dollar for your copy.

*Warm and tough,
when you have the best
it's*



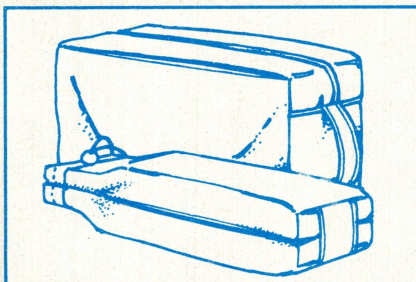
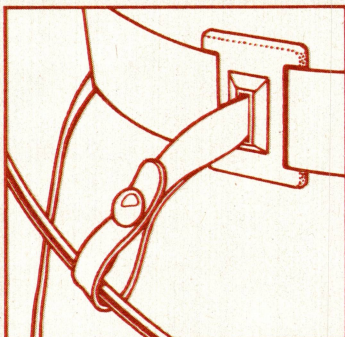
IMPERIAL

Imperial Manufacturing
P.O. Box 4119
Bremerton, Washington 98310
(206) 674-2316

Go down with a splash of color

Pennform Universal Instrument Consoles are made to fit your existing gauge system. Let us add some dash to your splash by housing your instruments in practical, colorful, high impact polypropylene. These precision-cut housings are available in Blue, Black, Red, Yellow and Green. Beautifully designed, they fit perfectly around nearly all of the finest gauges available, in your personal combination. ☐ Our rugged 200, 300 and 320 series consoles are constructed in two pieces for

The Console Retainer Strap is designed to hold one or two hoses, for use with all console systems, or with pressure gauges alone. Its colors are perfectly matched to our own consoles.



easy assembly. Simply place your gauges in the pre-cut bottom and screw on the cover. It couldn't be easier! ☐ Pennform also offers the perfect companion to your instrument console. Our easy to read Console Slate is made to be attached out of your way, to the back of your Pennform Console. The pencil fits securely along the side of the slate, with no excess tubing, furnishing maximum efficiency. ☐ The Pennform Console System

is the answer in eliminating bulky, excess equipment.

Protect your valuable instruments with our Console Bag in five matching colors, or combination Console and Regulator Bag in Blue or Black.

C-2227 Optional Slate

C-3127 Optional Slate

200 Series

Pat. pending

300 Series

320 Series

pennform
365 Mulberry • Wyandotte, MI 48192

Manufacturers and Distributors of Quality Diving Accessories
For Dealer convenience: call toll free 1-800-521-9818

CREATIVE STROBE

While lighting from one side builds in shadow detail and contrast which can be pleasing in the picture, you may not always want these shadows.

A pair of wide-beam strobes — mounted or held at the left and right sides of the camera — provide a more even distribution of light over the picture. If shadow detail is desired, one of the strobes can be held closer to, or further from, the subject. And if one of the strobes has adjustable power settings, its light output can be varied.

However, wide-angle U/W photography doesn't always require wide-angle lighting. You may wish to make a sunlight exposure, but with only a part of the subject — such as a diver's face within the mask — accented with strobe lighting. To carry this accent lighting further, you can use a wide-beam strobe to distribute soft, fill lighting over a wide area, and use a narrow beam to accent (spotlight) a primary center of interest.

DIVER PORTRAITS

One standard pose is for the diver to be looking slightly to one side, either to the left or right, at a secondary subject. For example, imagine a diver looking at a small pipefish a few inches in front of her faceplate. With a single strobe, the basic technique would be to use side lighting which illuminates the diver's face within the mask. With two strobes, the second strobe could be used for extreme side lighting. This would help separate your subject from the background by rimlighting the side opposite of the main light, and would accent finer details such as the diver's hair.

If the secondary subject is fairly large — such as a group of tube sponges — you can use one strobe to light the diver and the second to accent or spotlight the secondary subject.

U/W PHOTOGRAPHER AT WORK

Another standard pose is to photograph another diver at work with his strobe flashing. Actually, the "photographer at work" usually isn't trying to take pictures — he is posing for you. When lighting these shots, be sure that your subject's slave strobe is not facing your camera lens, and that his strobe is set for low power so there will be less chance of an accidental overexposure. With high-powered, housed strobes, tissue paper can be placed over the reflector to weaken the output. Try to angle the subject's strobe so you can catch the flash of light from a side angle, and so that it will accent the secondary object your subject is supposedly photographing.

WE'VE GONE TO GREAT LENGTHS SO YOU CAN GO TO GREAT DEPTHS.

SEA QUARTZ 30 & MINI QUARTZ 30

The watches that professional divers select in preference to ones at more than double the price. For ruggedness and reliability these timepieces are unsurpassed. The Swiss quartz movements ensure accuracy of one minute a year. Scratch resistant mineral crystal, luminous one-way ratcheted bezel, high-visibility luminous dial with orange minute hand, the stainless steel case is pressure tested to 30 Atms. and has a protective shoulder for the screw-down crown. 5 Year Limited Guarantee.

#3206 Sea Quartz 30 for men

(on strap) \$195.00

#3207 on matching steel bracelet \$220.00

#3806 Mini Quartz 30 for women

(on strap) \$195.00

#3807 on matching steel bracelet \$220.00

Champagne editions in 20 micron yellow gold-plate also available with matching bracelets.

#3407 Champagne Sea Quartz for men

(on bracelet) \$270.00

#3907 Champagne Mini Quartz for women

(on bracelet) \$270.00

MEN'S AUTO 20 & WOMEN'S AUTO 20

Quality watches at budget prices with stainless steel cases pressure tested to 20 Atms., screw-down crowns, one-way ratcheted bezels and magnificent design. Precision 17 jewel automatic Swiss movements with quick change calendars. Excellent value. 12 Month Limited Guarantee.

#3006 Men's Auto 20 (on strap) \$135.00

#3007 on matching steel bracelet \$150.00

#3506 Women's Auto 20 (on strap) \$145.00

#3507 on matching steel bracelet \$160.00



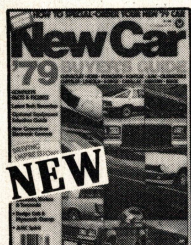
Chronosport, Inc.

119 Rowayton Avenue, Rowayton, CT 06853 Telephone 203/853-9593

Magazine 12 Specials

Value Priced!

A unique selection of Petersen's most popular special interest publications—all fully-illustrated and priced to fit your budget. On sale at newsstands everywhere or use the handy coupon below. Order today—only limited quantities available.



MT New Car Buyer's Guide
96 pages



HR Corvette No. 2
96 pages



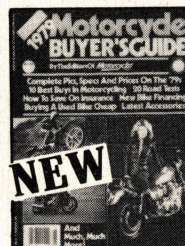
CC Chevy Camaro
96 pages



HR Rod & Custom
No. 8
96 pages



Petersen's Pickups & Mini Trucks No. 4
96 pages



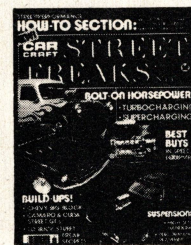
Petersen's 1979 Motorcycle Buyer's Guide
96 pages



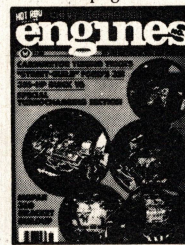
Truck & Van Buyers Guide '79
96 pages



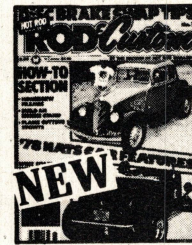
Hot Rod Chevrolet No. 2
96 pages



Car Craft Street Freaks No. 2
96 pages



Hot Rod Engines No. 2
96 pages



Hot Rod Rod & Custom No. 7
96 pages



HR Custom Painting
96 pages

Please send the following publications postage paid.

- ☐ New Car Buyers Gde. \$1.95
- ☐ HR Corvette No. 2 \$1.95
- ☐ Chevy Camaro \$2.50
- ☐ Rod & Custom No. 8 \$2.50
- ☐ Pickups & Mini Trucks No. 4 \$2.50
- ☐ 1979 Motorcycle Buyer's Guide \$2.50
- ☐ Truck & Van Buyers Guide '79 \$1.95
- ☐ Chevrolet No. 2 \$2.50
- ☐ Street Freaks No. 2 \$1.95
- ☐ Engines No. 2 \$1.95
- ☐ Rod & Custom No. 7 \$2.50
- ☐ Custom Painting \$2.50



Petersen Publishing Co.
Magazine/Circulation
6725 Sunset Blvd.
Los Angeles, CA 90028

C19-579

Name _____

Address _____

City _____

State _____ Zip _____

I am enclosing check or money order for the total amount of \$ _____. California residents add

6% sales tax. Please allow 4-6 weeks for delivery.

Please add 30¢ handling charge

TIPS ON TURBID WATER PHOTOGRAPHY

TEXT AND PHOTOGRAPHY BY
BILL GLEASON AND FRANK FENNELL

The dreams of underwater photographers usually take place in water with 200 foot visibility. An unbelievable reef. An entire wreck seen at a single glance. A chance encounter with dolphins, rays, or even whales. In pursuit of these dreams, thousands of divers travel to remote areas of the globe. Assorted camera gear allows them to capture and record the prolific life beneath the sea, and their photographs transmit the experience to fellow divers and non-divers.

At home, however, these same divers must settle for less than dream-like conditions. And, the camera equipment that accompanied them to Bonaire or Grand Cayman is often left behind. The reasons vary from "I tried once, but . . ." to "too dark," or "too dirty." However, good photos can be taken in turbid water if a little more time is spent on preparation and planning. The results are not those dramatic clear water photographs, but the dynamic environment of plankton rich waters. Turbid water is different in terms of visibility, inhabitants, and reef structure, which is why it presents a challenge to the underwater photographer.

One alternative that immediately comes to mind in turbid water is the use of macro extension tubes for close-up photography. While they are a relatively inexpensive addition to present camera equipment, the results are dramatic in almost any type of visibility. Even turbid, cloudy, and rough water contains small marine organisms that are fascinating subjects. The key to excellent results is the ability to control buoyancy and avoid stirring up the area. A minor mistake in clear water can devastate a picture in these conditions.

After you have achieved some good results with macro photography, it is natural to move up to a larger format and include divers and larger marine inhabitants in your photographs. For photographers seeking professional-type results there is really no substitute for a quality wide-angle lens. For housed cameras this means a lens (and an optically corrected dome port) with a focal length of less than 24mm. Nikonos users have a choice of two excellent lenses: the Seacor 21mm or the Nikon 15mm. These lenses allow the photographer to drastically reduce the subject-to-camera distance without having to sacrifice the area intended for the subject.

An alternative to purchasing these wide-angle lenses is to follow some general tips and techniques using your present 35mm or 28mm lens:

1. Reduce the number of subjects shot per roll. Instead of randomly shooting a number of different subjects concentrate on a maximum number of three to four. Shoot generously, and bracket the exposures by $\frac{1}{2}$ f stops.

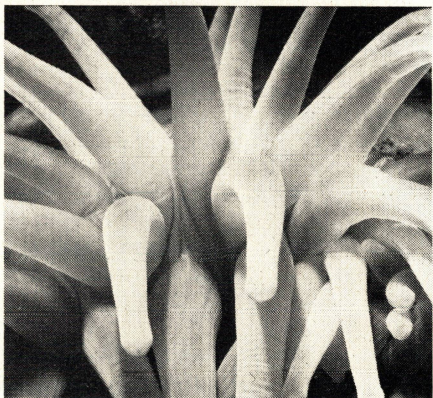
2. Use ledges, walls, caves, and the bottom for a natural background. This



reduces the areas behind the subject, and naturally limits the amount of scatter that can spoil a photo. Pose or frame your photos with this in mind.

3. Natural light is absorbed more quickly in darker water. Use calm, shallow areas for available light photos and particularly for silhouettes.

4. Use overhead lighting instead of the traditional side lighting to minimize scatter.



5. Be flexible in your planning. If visibility conditions are less than anticipated, be able to switch to macro work or an alternative shooting plan or location. Check visibility conditions above and below the thermocline before you bring your camera into the water. Colder water is usually clearer than surface water, but at depth in turbid water light is absorbed quickly, so compensate with more generous exposures.

One often overlooked side effect of working in turbid water conditions is that your overall photographic experience is greatly increased. After a season of shooting under adverse conditions in turbid water you'll find that not only are these photos improved but your clear water shooting will show vast improvement also. Try it. >>>

New England Divers Bonus for May 1979

ALUMINUM 80 CUBIC FOOT CYLINDER with 3000 PSI Service in a color selection of Black, Blue, Yellow and Gray. Comes with New England Divers Free Air For Life Card. Your choice of 'K' or 'J' Valve. All prices shown for tanks or back packs valid during month of May 1979 only...and do not include cost of shipping to you. This offer good at all our retail stores or from our Catalog Sales Division at the address below.

Aluminum Cylinder with K-Valve

\$95.95

Plus Shipping

Aluminum Cylinder with J- Valve

\$105.95

Plus Shipping

NON-CAM BACK PACK fits the above cylinders and is comfort contured in a low profile design.
\$17.95 Plus Shipping

EAST COAST:

Tozer Road
Beverly, Mass. 01915
(617) 922-6951
2945 N.E. Second Ave.
Miami, Florida 33137
(305) 573-4600
9820 Dixie Highway
Kendall, Florida 33156
(305) 667-4622

WEST COAST:

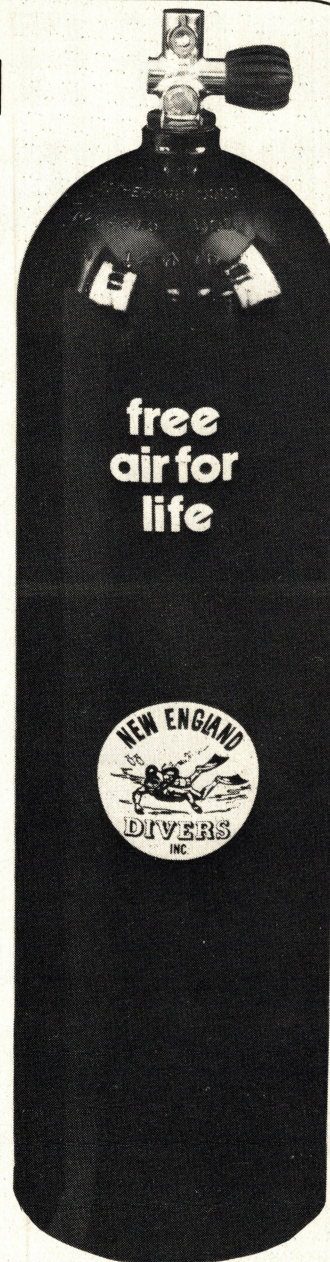
110 Embarcadero
San Francisco, CA 94111
(415) 434-3614
11830 W. Pico Blvd.
W. Los Angeles, CA 90064
(213) 477-5021
3860 Rosecrans Street
San Diego, CA 92110
(714) 298-0531
8363 Center Drive
La Mesa, CA 92041
(714) 462-4570
11009 First Ave. South
Seattle, Wash. 98168
(206) 246-8156
2507 South 252nd Street
Kent, Wash. 98031
(206) 246-3337



Pick up your copy of our new 88 page Sport & Commercial Catalog at any of our 9 Retail Stores...or request it from our National Catalog Division. Choose from thousands of items. See our prices before you buy! And we service what we sell! Only \$1.00 per Catalog.

New England Divers Catalog Division
107 Tozer Rd., Beverly, Mass. 01915 (617) 922-6970

Underwater life support systems are potentially dangerous to a non-trained user. These include scuba tanks, regulators and buoyancy compensators. This ad does not constitute an offer to sell these items via mail order.



MAKE IT PAY, WITH TRAINING BY:

Diving, of every type required for commercial operations, in an area that gives more practical diving weather than anywhere else in the U.S.A.

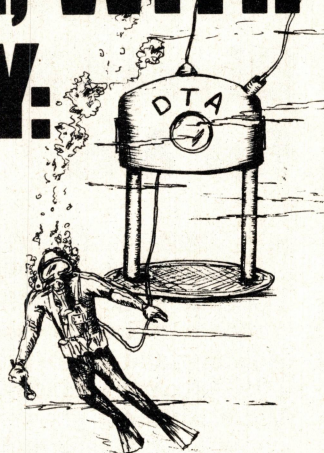
Training by experts whose only ambition is to produce well trained commercial air/mixed gas divers to work for national and foreign diving contractors.

A Curriculum that shows you exactly what you are receiving for your investment.

DIVERS TRAINING ACADEMY, INC.

RFD#1 - BOX 193-C, LINK PORT
FORT PIERCE, FLORIDA 33450 (305) 465-1994

Send \$2.00 for all new 1977-78 Catalog offering complete air/mixed gas Commercial Diving Course.



Member; Association of Diving Contractors, Association of Commercial Divers Education, Florida Association of Private Schools.

State approved for V.A. students Voc. Rehabilitation State and V.A.

THE COMPLETE AIR STATION



WORTHINGTON 20 CFM COMPRESSOR @ 5000 PSI

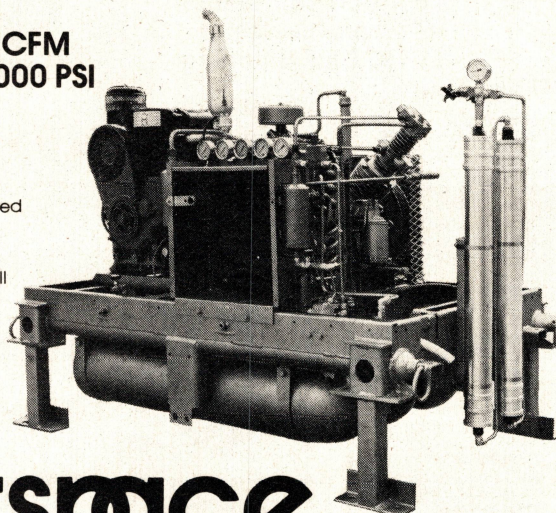
1500 cubic ft. storage @ 4800 PSI
Capable of filling 33 tanks the first hour and 20 the second hour.

FACTORY NEW Worthington Compressor (a few remanufactured ones available at real savings).

Diesel (shown)/Electric/Gas. This complete system, the H-5000, is all inclusive; nothing else is required.

Call for more information and delivery (305) 681-1462.

Worthington reliability with Innerspace Research's Experience & Service (over 25 years).



Innerspace Research

4780 East 11th Ave. • Hialeah, Fla. 33013 • TWX 810 848 5106 • Cable: INNERSPACE

Compressors from 3 cfm to 50 cfm.

A.D.P. 1979

Meet more divers, improve your dive skills, learn to night dive and find new dive spots with the 1979 Los Angeles County Advanced Diver Program. Beginning on July 6th, this rigorous, but fun, 100 hour course is designed to meet the needs of novice divers, those who've been inactive for a while, and those who want to continue their dive education.

Staffed by volunteers from the L.A. County Underwater Instructors' Association and other major dive instructor



agencies, the course emphasizes improving beach diving skills while learning advanced techniques. Entertaining and informative seminars feature top-notch speakers on all aspects of diving. Specialists in the field will cover dive fitness, medical aspects of diving and emergency procedures, underwater photography, practical oceanography, marine life identification, spearfishing, altitude diving, wreck diving, and more. Seminars are held on Friday nights with ocean sessions the following Sunday. The course meets for ten weekends, from July 6 through October 14th. An awards banquet will be held on October 20th to honor the participants and recognize those achieving special distinction.

For divers desiring more beach diving experience, ADP is a real asset. In addition, divers will participate in supervised boat dives, an organized deep dive and a night dive. Other water work will include sandy beach surf experience, rocky beach diving, U/W navigation and search and salvage operations.

Divers with basic scuba certification from any recognized agency, such as L.A. County, NAUI, PADI, YMCA, and NASDS, and who are at least 15 years old are eligible to apply. Course tuition is \$75. For further information, contact: Underwater Unit, L.A. County Dept. of Parks and Recreation, 155 W. Washington Blvd., Los Angeles, CA 90015.



...as dependable as the tide.

Dive after dive, tide after tide, you can depend on Sherwood.

Sherwood offers a complete line of high quality diving gear and accessories including rugged aluminum tanks in a wide choice of colors, precision tank valves and regulators, double tank rigs, and the Sherwood tank checker. And all Sherwood regulators carry a lifetime warranty.

Sherwood also leads the way to new adventures with innovations like the Sherwood Slingshot, a single tank dual-outlet valve that's perfect for cave and wreck dives, or anywhere elbow room is at a premium.

Stop by your local dive shop and see the full line of Sherwood gear . . . and dive with the gear that's as dependable as the tide.



SHERWOOD

SHERWOOD SELPAC CORP.

A HILL ACME COMPANY
PRECISION VALVES AND
REGULATORS FOR GAS CONTROL

120 Church St., Lockport, New York 14094, U.S.A.

Distributors

SELPAC CORP.
1652 Deere Avenue,
Irvine, California 92714

RAY MURRAY, INC.
Route 102
Lee, Massachusetts 01238

McTIER SUPPLY CO.
Box 761,
Lake Forest, Illinois 60045

SELPAC SOUTHEAST
3020 Adriatic Court
Norcross (Atlanta), Georgia 30071

SELPAC HAWAII, INC.
2333 Alahao Place
Honolulu, Hawaii 98619

HEALTHWAYS CANADA
50 Prince Andrews Place
Don Mills, Ontario, Canada

Anyone who possesses good dive skills can be an underwater model. And, with the overwhelming increase in the number of cameras taking the plunge this year, odds are that a lens will soon be pointing your way. Whether the viewfinder is directed by your dive buddy, husband, wife, girlfriend, boyfriend or just another diver on the boat, there is much you can do to improve the quality of their photographs simply by the way you dress. After all, if you were being photographed topside you certainly would not wear sloppy clothes

tiny bikinis. No longer must an underwater model look like Gidget in Hawaii or a lifeguard from Muscle Beach. It is not necessary for models to hand-feed moray eels or swim with sharks to create visually stimulating photographs. An attractively designed, colorful wetsuit will put excitement and interest into the photos for you automatically.

Don't be fooled by all those photos you've seen of divers wearing little more than a bathing suit as they enjoy warm tropical waters. Any experienced diver knows that even when diving in the

royal blue suits which can be ordered with black knee and elbow pads and a knife pocket. The addition of these black patches gives the suit a "touch of class" while the blue suit reflects light nicely.

Should your tastes be more flamboyant, you might like the look of colored stripes down the arms and legs of your wetsuit. One of the early innovators of this concept was Sea Suits, which added two-inch wide color stripes from



Broad bands of color add excitement to a blue wetsuit. Here Bobby Burns models a Sea Suits outfit with a U.S. Divers Sea Otter BC.

with mismatched colors. So, underwater your attire should look professional and be tastefully coordinated.

If you are the would-be model, the photographer, or both, the following suggestions will help you to achieve exciting and vibrant pictures instead of dull, ho-hum snapshots. Your success will be directly proportional to the amount of time and effort you are willing to expend in planning and maintaining your underwater wardrobe. Good photos don't just happen! Although those sensational "people pictures" in magazines may appear to be candid shots, in most cases they were planned well in advance.

WETSUITS

Long gone are the days of underwater pictures of women spilling out of

warmest of waters you will eventually get cold, particularly if you stay in one spot for long periods of time. A one-eighth inch wetsuit is the preferred choice of many U/W models because it provides just enough thermal protection. In addition, the suit protects the diver from coral, stinging hydroids, and other marine nuisances. By selecting a well-tailored wetsuit you are not only assured of warmth, comfort and safety, but you will also look great.

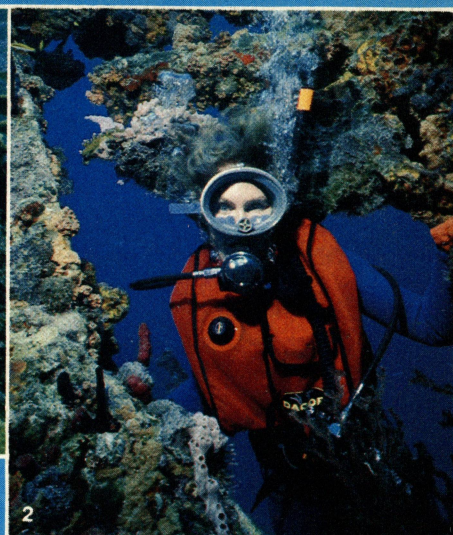
The wetsuit industry has come a long way from basic black and, in recent years, color has made its way into the marketplace. Blue has become very popular since it is pleasing to the eye and easy to coordinate with accessories. Scubapro and U.S. Divers are among those manufacturers who offer solid blue wetsuits. Harvey and Henderson make

shoulder to wrist and waist to ankle. A good combination would be a blue suit with a white or yellow stripe. The newest variation from Sea Suits is a take-off on their line of Primo surfing suits — a two-color double racing stripe. This broadens the choice of color combinations considerably, for now there are three colors to work with. For example, how about a green suit with a yellow and brown stripe or, even more unusual, a brown suit with a yellow and green stripe?

If you want a suit that is extremely rich in color try an international orange suit such as those offered by Imperial and



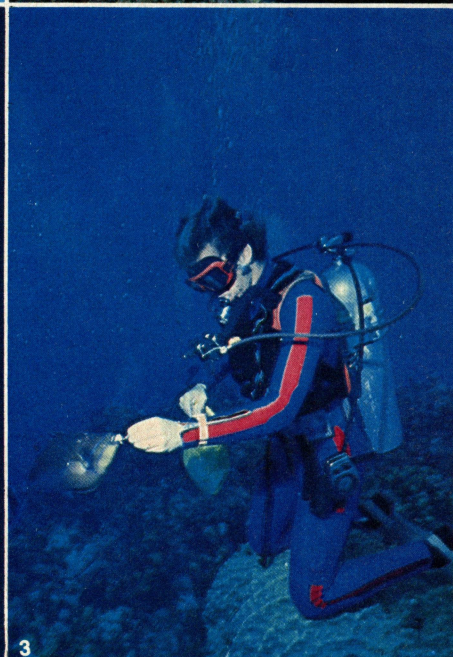
1. Divermaster Chris McLaughlin wears a new two-tone U.S. Divers BC called the Sea Otter.



2

Underwater Fashions

How to dress for the part
By Geri Murphy



3

2. The facemask is one of an U/W model's most important accessories. Here Luana Marler wears a blue Dacor mask and a red-orange Dacor BC, accentuated by orange gloves.

3. In another color combination, Danny Batchelder models a blue Imperial suit with red stripe and a Scubapro BC.



photography by Paul Tzimoulis and Geri Murphy

4. Author Geri Murphy models a royal blue Parkway wetsuit accentuated by black elbow and knee pads. Several manufacturers offer color fins, but divers can also use rubber paint by Aqua-Craft. The yellow BC is by U.S. Divers.



5

5. For a splash of ultra-color, Geri Murphy wears a Bluewater wetsuit, a Scubapro Stabilizing Jacket and matching fins and gloves.

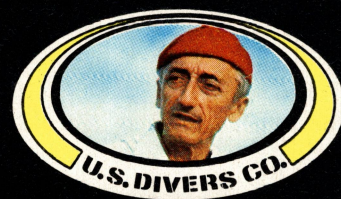
YOU DESERVE THE BEST

We Have It...

- U. S. Divers' Exclusive Consumer Protection Plan
- Limited one-year warranty
- New Cordura material
- Lever dump valve with stainless steel cable
- L.P. inflator
- Inner bladder
- Oral inflator with Velcro® tab
- Standard CO₂ cartridge — 38 gram on 52 lb. lift, 25 gram on 38 lb. lift
- Signal whistle
- 1-1/2" comfort crotch harness — new design
- Front pocket with Velcro® tab
- Nylon mesh drain on bottom



Contact your local Aqua-Lung® Dealer for information. Send \$1.50 for the new 1979 catalog.



Jacques-Yves Cousteau
Chairman of the Board



U.S. DIVERS CO.

3323 West Warner Avenue, Santa Ana, California 92702

© Copyright U. S. Divers Co. 1979 Part No. 7577-42

A Subsidiary of Liquid Air Corp. of North America



Parkway. Due to the filtration of color underwater, the suit will photograph a bright red. A more conservative approach would be Harvey's suit that is blue or black in the torso area but which has arms of the opposite color. A new style of jacket designed by Bluewater Wetsuits specifically for women is called the French Cut and eliminates bulky material at the hips. All of Bluewater's wetsuits are two-tone with optional color side panels. Another innovator of color panels is White Stag, which produces a suit

Fashions

with a panel that starts at the shoulder, runs under the arm and tapers at the knee. The panel is available in a variety of colors.

The choices available today are limited only by your imagination. Before you make a decision you should write to the manufacturers for their catalogs. The above descriptions are just a tiny sample of what is available in the way of design, color, and special features.

BUOYANCY COMPENSATORS

Never before has there been such a wide variety of buoyancy compensators available. As wetsuits have developed into more stylish and colorful ensembles, so have BC's. There are now on the American market over 75 models which come in 10 different one-color versions and over 12 different two-color combinations.

The buoyancy compensator covers a large portion of the body and choosing the right one can be to your advantage. Whether you pick a contrasting or complementary color, the BC will add a lot of interest to the photo. Some of the unique combinations offered by Seatec, for example, are yellow and orange, brown and tan, green and yellow, or blue and yellow. Another manufacturer that offers equally unique colors is SeaQuest. It has such unusual colors as silver, blue and silver, black and silver, as well as yellow and blue. An attractive outfit might be a blue suit with yellow stripes and a yellow BC with blue trim. Or, perhaps a red suit with a silver BC. New from U.S. Divers is the two-tone blue Sea Otter. The Scubapro stabilizing jacket also looks good in pictures because it photographs a deep red.

ACCESSORIES

The total look of your underwater costume is dependent upon the proper

accessories. Careful coordination and thoughtful planning will make the difference between looking like just another diver or a professional U/W model.

Mask. One of the model's most important accessories is a mask, for the face is usually the focal point of any picture. Although the majority of facemasks are made with black neoprene rubber, there are well over 100 different models to choose from, many of which have a brightly colored plastic rim. If you happen to like or use one that has a metal band, you can apply brightly colored plastic tape to complement your outfit. There are also the hypoallergenic, translucent masks made by manufacturers such as Scubapro, U.S. Divers and White Stag. Because light enters through the sides of the mask, facial features are easier to photograph.

Fins. Although most heel strap fins are black, most manufacturers carry a full foot fin in blue. Cressi-Sub puts out an attractive yellow fin and Mares has a new fin with a translucent white blade. Swimaster has a pair of heel strap fins that are light brown.

For those who are not satisfied with the above color choices, there is an alternative which is offered with some caution. You can paint your fins with rubber paint from Aqua-Craft. This is the only paint I know of that will stretch with rubber without flaking. It is sold in one ounce bottles and you may need four or more bottles to cover both fins with several coats. Extreme care must be taken while the fins are being worn because coral will easily strip the paint away, exposing the true color underneath. Once the fins have been painted, they should only be worn for modeling. Be prepared to continually repair knicks and scrapes.

Gloves. Gloves are usually worn by most people while diving and should be worn if for no other reason than to make your outfit complete. It is much better to wear a pair of colorful matching gloves than no gloves at all. Avoid the big, bulky rubber dishwashing gloves and those that are bright day-glow orange (they overpower the picture).

In warm water, the solid color garden gloves, sold in hardware stores across the country, are best. In cold water, wetsuit gloves are naturally worn and should match the accessories and trim of the suit. For example, if the suit is blue with a red side stripe, and the BC is red, the gloves should also be red.

Weightbelts. Colorful weightbelts are available almost everywhere and should match the rest of your accessories. If you want to go a step further, you can easily remove the standard black harness straps from your tank backpack and re-

place them with nylon webbing in the color of your choice. Webbing is sold by the yard from Aqua-Craft.

Knife. Although everyone who models would like to have several different color knife handles, this is not always feasible. You can easily change the color by simply wrapping the handle with colored plastic tape.

MAINTENANCE

Brightly colored dive gear has one disadvantage. It shows dirt easily and the slightest brush against sponges or coral will be noticeable. This is particularly evident with white and yellow wetsuit material. For on-the-spot clean-ups you should always bring along a small plastic bottle of Woolite and a toothbrush for scrubbing. If the stain is stubborn, bleach will remove it, but use caution.

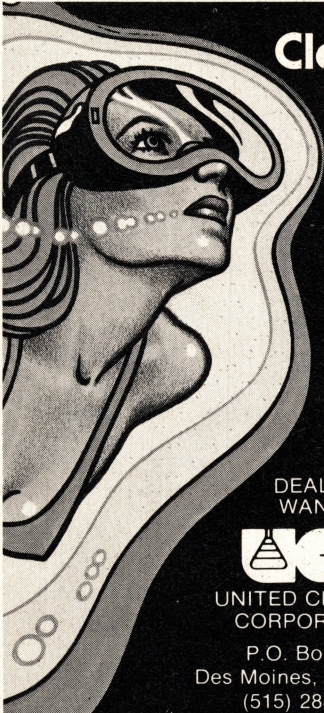
Weightbelt straps, tank straps, BC harnesses, etc. should be trimmed and heat sealed before the dive trip. Make sure you have retainers or straps (velcro works well) to hold all extraneous hoses close to the body. Be sure to always use an anti-fog agent or detergent in your mask just prior to the dive to avoid fog in your mask.

If you are going on a trip, put together a modeling kit containing a selection of different colored gloves, weightbelt webbing, colored plastic tape, cleaner for mask and suit, and extra straps and velcro.

PUTTING IT ALL TOGETHER

With the overwhelming number of choices available, it may be difficult to coordinate a colorful but tasteful outfit. To start with, avoid putting too many different colors into the scene — they will only make the photo look "busy." You will put much more impact and drama into the photo if you work with only two or three. The colors you pick should be compatible and, with a little planning, you can create a number of different outfits, all with a totally new look, simply by changing the accessories. For example: A blue suit with an orange and yellow stripe could be worn with BC, gloves, fins, mask, etc. all in yellow. The same suit would look very different with all orange accessories or with a mixture of yellow and orange accessories. Or even with all blue, blue and orange, or yellow and blue accessories. There are countless combinations that could be assembled with just one wetsuit.

Whether you just want to improve your overall appearance underwater or create a totally unique and outstanding modeling outfit, the equipment is now available. Color is the key; all you have to do is utilize it. Remember, good photos just don't happen; they are planned! ➤



Clear Lens

THE
ADVANTAGE
IS CLEAR



An aquatic antifogger that keeps **masks and goggles** fog free for hours. It is safe, economical and non-polluting. Used on the goggles of thousands of competitive swimmers and tested by top scuba instructors. Water insoluble, **CLEAR LENS** is designed for **under water** use. For further information write or call.

DEALERS
WANTED



UNITED CHEMICAL
CORPORATION

P.O. Box 4596
Des Moines, Iowa 50306
(515) 288-0228

Please send me _____ bottles of
CLEAR LENS at \$2.25 per bottle.

Name _____

Address _____

Zip _____

MAGNIFYING LENS!

Tiny MICROSIGHT™ Lens
Glues easily into a corner of face mask to magnify **everything** — gauges, f-stops, mini-critters — under water. Used and loved by hundreds of divers in all waters.

Send \$3.50 + waterlou enterprises
\$1 Handling to: Box 125K, Mountainville, NY 10953

BELIZE LODGE FOR SALE

Ambergris Caye — 1000' coral beach, cleared and planted with coconut palms, with six buildings and 3 generators. Pier, Famous Barrier Reef ½ mile offshore. Ideal for diving group. \$200,000. Will Trade.

P.O. Drawer 1090, Corpus Christi, Texas 78403



Robert J. Shourt
President, Undersea Systems, Inc.
President, Coastal Diving Operations, Inc.
Director, Coastal Diving Academy
President, The Dive Shop, Inc.

“NOW I CAN SAVE YOU MONEY WITH THE LOWEST MAIL ORDER PRICES PLUS BIG IN-STORE DISCOUNTS”

Wherever you live, you can get the very special prices of New York's most professional diving equipment distributor. For fast service and quality assurance, order direct, using coupon.

The Dive Shop reserves the right to substitute models or brands of equivalent or greater value, which you may return unused within 10 days if not delighted.

ACT NOW! These low prices can only be guaranteed for one month after magazine issue date.

THE DIVE SHOP, INC.

110 West Main St., Bay Shore, N.Y. 11706 (516) 665-2526

SD-5

	List Price	You Pay
A. ☐ Oil Filled Depth Gauge	49.90	21.95
B. ☐ Pressure Gauge	50.00	36.95
C. ☐ Allen Light 400	53.00	39.95
D. ☐ Famous Name Compass	19.95	14.95
E. ☐ Bottom Timer	49.95	34.95
F. ☐ Cressi Full Face Mask (limited supply)	59.95	26.95
G. ☐ 1/4" Cold Water Hood	20.00	14.95
H. ☐ U.S.D. Pacifica Mask	18.50	13.50
I. ☐ Aquastar Glasstar Watch	109.95	60.95
J. ☐ 3/16" Hardsole Boots	19.00	14.95
K. ☐ U.S.D. Rocket Fins	29.50	17.95

THE DIVE SHOP pays all shipping costs within the continental U.S.A., but there is a \$2.00 service charge for orders under \$25.00. Outside the continental U.S.A., (Alaska, Hawaii, Puerto Rico, etc.) all freight charges are C.O.D. Allow 3 to 4 weeks delivery with personal check.

Master Charge No. _____

Exp. Date _____ Interbank No. _____

Name _____

Address _____

City _____

State _____

Age _____

Zip _____

	List Price	You Pay
L. ☐ U.S.D. 1/4" Nylon 2 Side Farmer John	202.25	159.95
Ht. _____ Wt. _____ Chest _____		
Waist _____ Hips _____		
M. ☐ U.S.D. BCII Vest	155.50	99.95
N. ☐ Deluxe Scuba Special: 80 cu. ft. Alum. Tank,		
Contour back-pack, Conshelf XIV Regulator		
w/K valve	367.70	225.95
w/J valve	384.70	230.95
O. ☐ Conshelf XIV Regulator	143.25	95.95



Use and operation of life support equipment should not be undertaken without qualified and proper instruction in their use. This ad does not imply the sale of life support equipment through the mail.

SEND FOR FREE CATALOG AND DECAL.

VISA No. _____

Exp. Date _____

Amount enclosed
\$
N.Y. RESIDENTS
ADD SALES TAX

Technifacts

BY E. R. CROSS

The basic purpose of this column is to stimulate an interest in the technical aspects of diving and in dive safety. It will be devoted to providing factual answers to questions from SKIN DIVER readers. Answers will be designed to apply to the majority of dive situations, problems and equipment encountered in today's diving.

For questions or comments used in this month's Technifacts I would like to thank P. R. Strong, Los Angeles, CA; Dwight Engelhardt, Vasser, MI; John D. Conway, Branchville, NJ; and C. D. Gimbel, Chicago, IL.

SKIN BLISTERS

A reader explains that he had been diving over a sunken boat from which gasoline had been or was leaking. During the dive he felt a burning sensation around the wrists of his wetsuit jacket and around his lips. Not much later the skin started to blister and was very red and sore. His question is: "What was the cause of this rather severe reaction?"

Some products derived from petroleum refining are a potential hazard to divers. When the diver is out of the water and the skin is dry, the same petroleum products are less likely to cause severe discomfort or, possibly, any trouble at all. The various gasolines are some of the petroleum products that cause skin burn or irritation in varying degrees when encountered by a diver in the water.

Basically, the major chemical components of crude petroleum are hydrocarbons; i.e., compounds of carbon and hydrogen atoms in molecules of different sizes and arrangements. Small molecules of up to four carbon atoms form the various hydrocarbon gases. Larger molecules of up to ten carbon atoms form the very light fuels up to the several types of gasoline. Still larger molecules of up to 50 atoms make up the light fuels such as heating oil and lubricating oils. And, the gigantic molecules having up to several hundred carbon atoms make up the heavy fuels such as bunker fuel, waxes, and asphalts. Other constituents of crude oil are nitrogen, carbon dioxide, hydrogen sulphide, smaller amounts of helium and possibly other gases.

The carbon atoms of the hydrogen molecules may be linked to form either a ring or a chain. Also, either a ring or a chain molecule may have only a partial complement of hydrogen atoms forming unsaturated molecules or a full complement of hydrogen atoms forming saturated molecules.

CALL FOR BIG SAVINGS NOW 312-725-2155

- ★ Divers on hand to answer your questions
- ★ Huge selection of name brands
- ★ Free catalog flyer
- ★ Use your bank charge
- ★ Fast delivery
- ★ Order by phone

Examples of Savings:



- Wet suits from \$49.00
- US Divers Mariner Pack \$23.00
- Giant 15x30 vinyl gear bag heavy duty \$19.95
- Weight belt with 15 lb. wts \$19.95
- Nikonos III with 35mm \$379.00
- US Divers Pro Snorkel \$5.49
- USD Sea Hawk knife \$19.95
- US Divers snorkel \$3.99
- Rocket fins \$16.95
- Watches \$19.95 & up
- Deluxe Cam Pak \$24.99
- Dive Lights \$9.95 & up



Send your name and address for free flyer and get on our mailing list for continuous super sale flyers:



SCUBA

6059 W. Addison
Chicago IL 60634

Underwater life support systems are potentially dangerous to a non-trained user. These include scuba tanks, regulators and buoyancy compensators. This ad does not constitute an offer to sell these items via mail order.

BERRY SCUBATECH

Midwest's complete training academy
We offer the complete PADI program from the one week basic SCUBA certification to the full open water instructor course. Call or write for brochure.
312-371-3366
12003 S. Cicero
Alsip, IL 60658

BERRY SCUBA WAREHOUSE

Super in store savings
J-tanks start at \$79.95
BCs from \$29.95
MR 12 regulator \$89.98
US Divers Aquarius \$59.95
and many more specials.
312-358-3848
1717 Rand Road
Palatine, IL 60067

BERRY ATLANTA

Grand opening sale at our newest location.
50% DISCOUNTS on in the store specials.

Just a few minutes from I-75 or the Atlanta airport. 3443 Stewart Ave. Hapeville, GA 30354 404-766-1186

BE A
CERTIFIED

DIVING INSTRUCTOR

EQUIPMENT REPAIR SPECIALIST

Florida P.A.D.I. College

A PADI SANCTIONED INTERNATIONAL TRAINING FACILITY

A SUBSIDIARY OF *National Underwater Educators*



Here is your opportunity to turn the exciting sport of skin diving into a rewarding career. Qualified people are needed in diving instruction, dive shop management and sales. The ten week resident training program at Florida P.A.D.I. College offers the skills, advanced techniques and thorough knowledge of equipment and its maintenance to qualify you for these challenging positions. Train in Florida with warm water and good weather — act NOW! **APPROVED FOR VETERANS TRAINING.**

Florida P.A.D.I. College 4593 ST. JOHNS AVENUE SD-5-79
JACKSONVILLE, FL 32210 904/388-4889

Check course you are interested in:

10 WEEK FLORIDA P.A.D.I. COLLEGE COURSE

- ☐ July 2-Sept. 7, 1979
- ☐ Oct. 1-Dec. 7, 1979

NEW 12-DAY INSTRUCTOR TRAINING-EQUIPMENT REPAIR COMBO COURSE:

- ☐ June 11-22, 1979
- ☐ Sept. 10-21, 1979
- ☐ Dec. 10-21, 1979

Send for free color catalog.

APPROVED FOR VETERANS TRAINING

NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____

PHONE A/C _____

Licensed by the State Board of Independent Post Secondary Vocational Technical, Trade and Business Schools. Certificate Number 166

Your future starts today at Florida P.A.D.I. College

DIVERS

recover treasure, bronze,
cannon, ship propellers and
complete fishing vessels

with the lift bags the
professionals use.

NOW AVAILABLE FROM STOCK IN U.S.A.

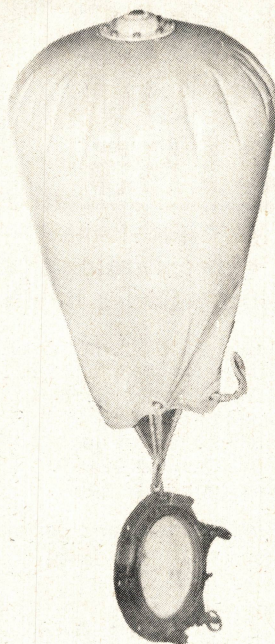
automarine liftbags

LIFTING CAPACITIES 200LBS TO 5TON

AS USED BY ALL LEADING COMMERCIAL
DIVING AND SALVAGE COMPANIES
ENGAGED IN WORK IN THE NORTH SEA.

FOR ALL DETAILS, WRITE OR CALL FOR
FREE STICKER & BROCHURE TO:

JIM MANN, J.W. AUTOMARINE (USA) CO.
LAWRENCE FARMS EAST, OLD ROAD LANE,
MOUNT KISCO, NEW YORK 10549, U.S.A.
TELEPHONE (914) 241-0297



Oceanic Products Underwater Electronic Strobes

Oceanic 2000 Package \$225.95 plus shipping

Includes Strobe, Oceanic Pro Grip,
Thumb Release, Mounting Arm, and
Carrying Case. Specify type of Pro
Grip; Nikonos II, or Nikonos III, and
type of connector; Nikonos II,
Nikonos III, E.O. or Slave.

Ikelite SLR Housing w/Oceanic 2001
Strobe, 21" Ball Joint Arm, necessary
mounting hardware and connectors
included. \$560.95.

Other Oceanic and Subsea strobe
packages are available.

UNDERSEA CAMERAS

955 East Rand Road, Des Plaines, Ill. 60016 (312) 296-3064

Achilles
Last year "The big two"
became "The big three".
See how much more Achilles has to offer.

Achilles offers divers the advantages of an inflatable plus the extra benefits only available with an Achilles. The convenience, stability, performance and load capacities of inflatable boats have long been recognized by divers throughout the world. Achilles offers all these plus rugged Hypalon® Nylon construction and compartmentalized design for added safety in even the most severe conditions, a range of models to match your needs exactly... and a price that lets you put more dollars into the quality of your diving gear — without sacrificing the quality of your boat.

If you are considering an Avon or Zodiac — look into an Achilles. Don't miss the boat that has the most to offer.

- 11 models of sport boats
- Sizes from 9' to 17'
- Capacities to 2000 lbs.
- Recommended power to 50 hp.



ACHILLES INFLATABLE CRAFT Division of KOHKOKU USA, Inc.
25 Branca Rd., East Rutherford, NJ 07073 (201) 438-6400, (212) 725-5755
Warehouses in E. Rutherford, NJ and Los Angeles, CA.
THE HIGH QUALITY LINE OF JAPANESE MADE INFLATABLE BOATS

TECHNIFACTS

Saturated ring hydrogen molecules are called naphthenes. Saturated chain hydrocarbon molecules are called paraffins. Both are unreactive since they can combine with other materials only by substituting for one or more of their hydrogen atoms. However, they can be changed to unsaturated molecules in refining processes.

Unsaturated ring hydrocarbons are called aromatics; unsaturated chain hydrocarbons, olefins. Both of these can combine directly with other materials without having to displace any hydrogen atoms and are considered very reactive.

It is the aromatics that are of the most concern to the diver or swimmer who is in the water during their presence. Not all aromatics start out as aromatics. The refiner, using catalytic processes, can change or increase aromatic products from select hydrocarbon crude stocks that contain suitable precursors for making benzene, naptha, the xylenes, reformat and other aromatic products through about the ten carbon atom range, which includes the various gasolines.

The aromatics from very light fuels, including gasoline, are absorbed by water. When they come in contact with a diver, whose skin is saturated with water, a reaction can occur and cause severe chemical burns.

Commercial divers are more likely to encounter aromatic fuels than are sport divers. Primarily this will be in connection with submarine pipe line or hose repair or during work on a leaking tanker hull. Sport divers may be involved with aromatics, such as gasoline, as a result of fuel spilled from an outboard or other engine during fueling, maintenance, rescue or salvage of a damaged small boat.

In Hawaii in the past several years there have been at least five instances of divers being chemically burned as a result of aromatic type fuels. In two of the cases the diver had to be rescued. Most cases involved extremities: hands, feet, or sensitive areas of the head. However, there was one case where a commercial diver, working with band-mask and wet-suit gear, spent most of the day in shallow water surrounding a leaking hydrocarbon product pipe line. He suffered mild chemical burns over nearly all parts of his body — it looked as if he had been sunburned. Later his skin peeled off in several areas.

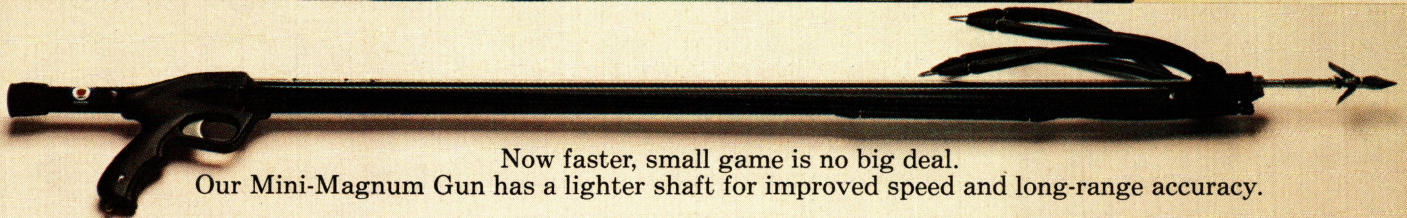
In such chemical burns the first sign is usually a reddening of the skin and a feeling of warmth. Depending on the severity of the reaction, the next indication may be the development of blisters. Soon a feeling of excessive warmth develops and this may be followed by indications of shock. In my own encounter with a reformat spill from a leaking submarine

We've made changes from head to toe.

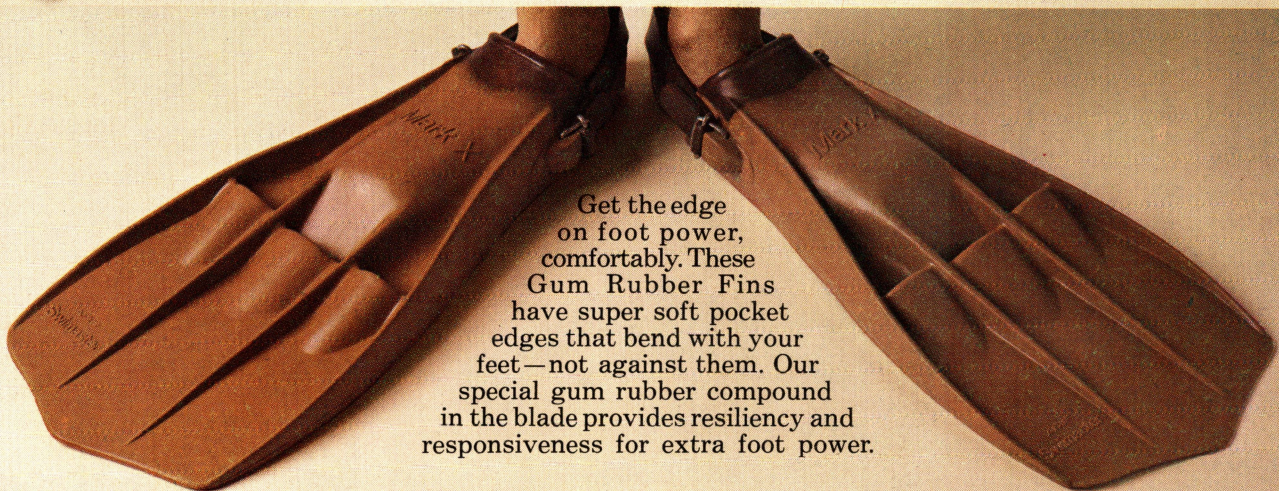


Breathe easier knowing that your regulator is always clean and protected. Our new Regulator Scuff Cover is made of durable thermoplastic that's ozone resistant and weatherproof.

You and your friends will be a cinch to spot. Our unique lime green Buoyancy Compensator Vests give you high surface and underwater visibility.



Now faster, small game is no big deal. Our Mini-Magnum Gun has a lighter shaft for improved speed and long-range accuracy.



Get the edge on foot power, comfortably. These Gum Rubber Fins have super soft pocket edges that bend with your feet—not against them. Our special gum rubber compound in the blade provides resiliency and responsiveness for extra foot power.

All these changes for the better were designed around your needs. Swimaster outfits you with the finest diving fun there is. So that you can enjoy yourself from head to toe.

Santa Ana, California 92704

AMF
Swimaster

Instructor Training Courses

PADI ITC SCHEDULE

Chicago, ILLINOIS	May 5 - 13
Atlanta, GEORGIA	May weekends
San Marcos, TEXAS	May 19 - 26
St. Louis, MISSOURI	Jun weekends
Selinsgrove, PA	Jun weekends
Newport Beach, CA	Jun 9 - 16
Gainesville, FLORIDA	Jun 10 - 17
Galveston, TEXAS	Jun 22 - 30
Marquette, MICHIGAN	Jun 23 - 30
South Caicos, BRITISH WEST INDIES	Jun 24 - Jul 1
Toronto, CANADA	Jun 30 - Jul 8
Victoria, CANADA	Jul 7 - 14
Stella Maris, BAHAMAS	Jul 14 - 21
Albuquerque, NM	Jul 14 - 22
Beaufort, SC	Aug 5 - 12
Eilat, ISRAEL	September
Sydney, AUSTRALIA	Oct weekends
Tokyo, JAPAN	Oct 6 - 13
San Diego, CALIFORNIA	
Seven Day Courses	May 26 - Jun 1 Jun 23 - 29 Jul 28 - Aug 3 Aug 25 - 31
Ten Week Courses	May 21 - Jul 27 Jul 30 - Oct 5
Jacksonville, FLORIDA	
Twelve Day Courses	Jun 11 - 22 Sep 10 - 21 Dec 10 - 21
Ten Week Courses	Jul 2 - Sep 7
Ft. Walton Beach, FL	May 20 - 27 Jun 3 - 10 Jun 17 - 24 Jul 8 - 15 Jul 22 - 29 Aug 5 - 12 Aug 19 - 26
Vancouver, CANADA	
Four Week Courses	Jul 9 - Aug 7
Bellmore, NEW YORK	Continuous
Bay Shore, NY	Continuous

SEND FOR:

- ☐ Self grading Instructor Exam - \$2.00
☐ ITC Info Package - FREE

CONTACT:

WRITE OR CALL **PADI ITC**
 2064 N. Bush Street
 Santa Ana, CA 92706
 (714) 547-6996

PADI NUMBER ONE IN DIVER EDUCATION

TECHNIFACTS

hose system, the time from first encounter to skin peeling off my hands and wrists in great blisters (with attendant feeling of intense burning, mild dizziness and nausea) was no longer than one hour. In fact, skin began peeling from my wrists in less than one-half hour, while I was still submerged.

The burn may occur even though there is no outward indication of a product spill — no slick on the surface of the water, no discharge from a leaky pipe or hose, or other visible signs of trouble. The aromatic hydrocarbons apparently go into solution, are absorbed by, or possibly combine chemically, with some of the molecules of the water. This water, surrounding the diver's body, enters the pores of the saturated skin and causes the chemical burn.

Doctors with whom I have discussed aromatic hydrocarbon chemical burns recommend the use of baby oil or cooking oil as a first aid measure. A simple skin cream might also prove beneficial. Apply to the affected area freely, wrap loosely with gauze, then saturate the gauze with additional oil or cream. Do not use oils, greases, or salves derived from hydrocarbons. Keep in mind that an aromatic burn is chemical in nature. Medical care should be obtained as soon as possible, even though the signs and symptoms may be minor at the time of the accident.

Some hydrocarbon aromatics (benzopyrene, dimethyl, and benzanthracene, to mention three of several) are known to be carcinogens (cancer or tumor producing). I am not sure about the hydrocarbon aromatics found in the various fuels.

It is strongly urged that all divers, both commercial and sport, be very cautious about entering water in which any of the lighter hydrocarbon fuels may have been spilled or leaked in the recent past. The diver mentioned previously, who suffered mild chemical burns over his entire body, was working on a buried pipe line that had leaked a jet fuel nearly two weeks previous to his dive. The pipe line was buried several feet beneath the bottom of the harbor and it was necessary for the diver to uncover it. Even though no product showed on the surface, disturbing the silt, coral, and rock fill around the pipe line released enough hydrocarbon aromatics to cause the chemical burn.

DRUGS AND DIVING

The subject of drugs in diving has, in recent years, become of grave concern to dive authorities and researchers alike. The subject has been discussed in editorials and articles in SKIN DIVER. That drug abuse is a potential problem in the sport diving community is also evi-

RUN with this blue whale as you keep fit in a pair of our **SHORTS** and explain to your friends about the moratorium vote on whale hunting July 1979.



VICTORY for WHALES in 79

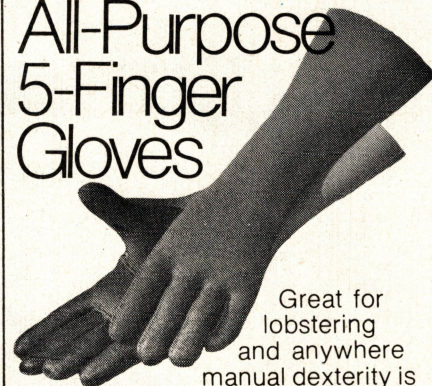
Tri-color design on 100% cotton, white twill with Kelly green, navy, or scarlet trim. Men's sizes XS(24-6), S(28-30), M(32-4), L(36-8) \$5.50. **POSTER:** "Is man most precious of all things?—then let us love him, and his brothers, all those fading living beings—" Quoted from Gary Snyder's "Mother Earth: Her Whales," in his 1975 Pulitzer Prize book of poetry, **TURTLE ISLAND**. Poem published with color illustration of whales, dolphins, and schools of fish on quality, 23x18 3/4 paper. \$5. The Book,



\$2.50. Send 25c for information about whales, our strategy of non-violent non-cooperation with whaling nations; a list of books, jewelry, shirts, and other merchandise; the story of our **BLUE WHALE REDWOOD GROVE** growing alongside I-5 and Santiam River near 45th parallel; and our postcard writing campaign to connect you and the citizens of capital cities of whaling nations in order to stop whale hunting in 1979.

This whale—**Balaenoptera musculus**, the largest mammal with one of the largest brains known to have inhabited the planet—also emerges on our Baseball Jersey, and T-Shirts, or you may choose this celebratory tree planting design. Both have large numerals on back noting next moratorium vote. **JERSEYS:** Green, red, or blue raglan 3/4 sleeves on white; 50% cotton-50% polyester. Child S,M,L \$7. Adult S,M,L, XL \$8. **T-SHIRTS** are 100% cotton in gold, red, powder blue, yellow, tan, or white. Adult, heavyweight, \$6. Child, \$4.50. S,M,L,XL. Either design on a bumpersticker or a button is \$1.25 with request for information. Post-paid from **OREGONIANS COOPERATING TO PROTECT WHALES**, an Oregon non-profit corporation, 873R Willamette Street, Eugene, Oregon 97401. On the mall in Eugene's oldest downtown building. Foreign orders require US\$ and 75c extra postage. Hand screened shirts require 4-6 weeks and a 2nd or 3rd color choice expedites your order.

New Henderson All-Purpose 5-Finger Gloves



Great for lobstering and anywhere manual dexterity is important, this new design features extra long sleeves to protect suits and zippers from abrasion and to keep out excess water.



A snug fit, but not tight enough to inhibit circulation, a common cause of cold fingers.

GET OUR BRAND NEW FULL-COLOR CATALOG FEATURING FULL WET SUITS, DRY SUITS, TOPS, AND MANY ACCESSORIES.



BUCK & SASSAFRASS STS. MILLVILLE, N.J. 08332
 (609) 825-4771 Dealer inquiries invited

THE ATMOS...

a new
standard of
excellence

A new standard in safety:

The **ATMOS** second stage is the ideal "Safe Second." Available in standard black or the high visibility international orange. Designed to be used either right or left handed, the **ATMOS** has no "upside down" position.

A new standard in engineering:

The **ATMOS** is the world's first Environmentally Engineered regulator. Perfect in the Caribbean, flawless in the ice cold waters of northern Europe, the **ATMOS** is truly the only "World" regulator.

A new standard in performance:

From the high volume teflon coated flow-thru piston in the adjustable first stage, to the unique 12-port exhaust system of the second stage, the **ATMOS** is totally engineered to provide maximum air flow with minimum resistance under the most severe conditions.

A new standard in confidence:

All **ATMOS** regulators come with the exclusive **SUBMAREX** limited lifetime guarantee. Each original purchaser of the **ATMOS** is provided the **SUBMAREX** Worldwide Card of Confidence. Your Card of Confidence is our promise that you will receive expert and courteous service from any Authorized **SUBMAREX** Specialist, any place in the World.

The ATMOS from SUBMAREX.
If you want a better regulator, invent one!



SUBMAREX U.S.A.

500 West 18th Street, Hialeah, Florida 33010
Phone: 305/885-8012 Cable: SUBMAREX TELEX: 51-877

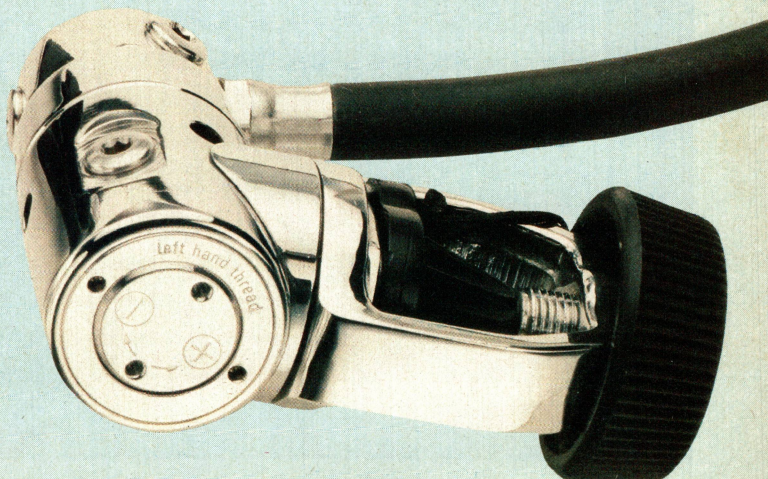
SUBMAREX AG. SWITZERLAND

Stampfenbachstrasse 59
CH-8006 Zurich TELEFON: 01-60 50 88 TELEX: 56 183

SUBMAREX U.K.

Leodis Works, Woodhouse Street
Leeds, LS 26 2QE, West Yorkshire
England TELEPHONE: 0532 457437/8 TELEX: 557938

*Sold only through
specialized retailers.*



DYNAMITE... PROTECTION

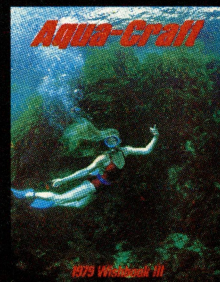
A dramatic underwater scene showing a diver in silhouette on the left, facing a shark on the right. The shark is illuminated by a bright light source, possibly a flashlight, creating a strong contrast against the dark blue water. Bubbles are visible around the diver's head.

THE SEAWAY "FASTLOAD" POWERHEAD, designed and developed by Rhett McNair. This is the ultimate defensive weapon. No corners have been cut just to save you a buck. What we want is to save your life! At Aqua-Craft we think a powerhead should be reliable first, long lasting second, and economical last. Ours is only economical when it happens to save your life. With a little care, it will last a lifetime . . . a l-o-o-o-ng lifetime.

Aqua-Craft, Inc.

FIRST IN DIVING ACCESSORIES
3280 Kurtz St., San Diego, CA 92110

Dealer Inquiries Invited



**Send for free
1979 Wishbook.**

Danny's Best Buys for '79

Get set
for the year with
gear that will never
be priced lower!

A Wraparound Mask \$19.95

B U.S. Div. Rocket Fins \$16.95*
*14.95 When purchased with Wraparound Mask

80 cu. ft. Alum. Tank K-\$115.95 J-\$119.95 (\$10.00 shipping in U.S.A.)

C Full-Face Mask Special Sale \$34.95 LIMITED SUPPLY

D U.S. Div. BCII (Yellow) \$85.00 (\$2.00 Shipping)

E Famous Make Depth Gauge \$29.95 LIMITED SUPPLY

F Weight Belt \$5.00

D Famous Make Pressure Gauge \$34.95

MR 12 Regulator \$114.95 (FREE regulator bag with purchase of MR 12 regulator)

DANNY'S DIVE SHOP

1579 Grand Ave., Baldwin, N.Y. 11510
Tel. (516) 223-8989
Located bet. Sunrise Hwy. & So. State Pkwy.

- ☐ **A** Wraparound Mask \$19.95
- ☐ **B** U.S. Div. Rocket Fins \$16.95
(\$14.95 if purchased w/ Wrap. Mask)
- ☐ **C** Full-Face Mask (Lim. Supply) \$34.95
- ☐ **D** Fam. Make Press. Gauge \$34.95
- ☐ **E** Fam. Make Depth Gauge (Lim. Supply) \$29.95
- ☐ **F** Weight Belt \$ 5.00

☐ FREE CATALOG

PRICES SHOWN EFFECTIVE UNTIL APRIL 30, 1979

VISA MASTER CHARGE

AMERICAN EXPRESS

Name

Address

City

State

Zip

Use and operation of life support equipment should not be undertaken without qualified and proper instruction in their use. This ad does not imply the sale of life support equipment through the mail

TECHNIFACTS

denced by letters I have received outlining problems encountered by divers and from divers wanting to know what effect the use of some of the more popular "social problem" drugs will have on divers.

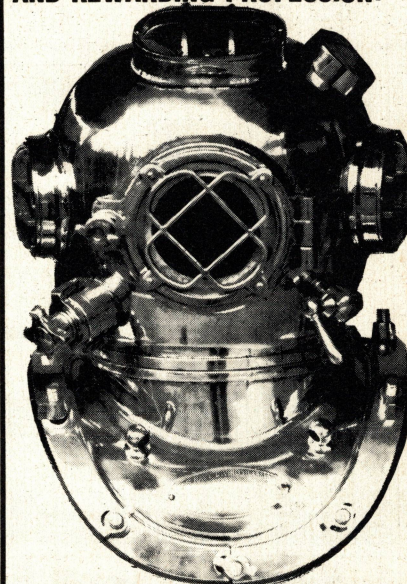
There has been a great deal of research in the use of drugs in several areas of diving. A drug used to treat alcoholism was found to delay the onset of both pulmonary and CNS forms of oxygen toxicity. Another drug experimentally reversed the deleterious effects of decompression sickness. Still other tests involved common aspirin in very deep diving tests to alter blood chemistry and cellular parameters. These, and hundreds of other tests involving many drugs, have mainly concerned the very deep diver breathing mixed gases, with most such research by investigative groups conducted in the 600 foot plus range, depths the majority of divers will never reach. Perhaps only about five percent of all on-going diving research is channeled toward average sport and commercial diver depths and reactions.

Some research that is of use to the average sport and commercial diver deals with the use of antihistamine and motion sickness drugs. Physiologically a diver is under normal conditions only when he is at the surface of the water at approximately sea level pressure. The simple act of going underwater can alter the diver's behavior, attitude, and mood patterns. If he goes deep enough the patterns will be altered so drastically he will no longer be able to control his actions and a pattern of survival cannot be maintained. The consumption or use of any drug also changes to a greater or lesser degree these behavioral traits and alters the ability of the person to see, hear, feel, or react as well as might otherwise be possible. It has been found that the effects of these frequently used drugs do change the behavioral pattern of divers under pressure as shallow as 50 feet. It was also determined that these changes cannot be predicted and vary greatly with the diver's age, sex, weight, emotional state, and whether or not he had a good night's sleep.

The same holds true in the use of drugs such as amphetamines, barbituates, marijuana, heroin and others. Their top-side effect may be completely reversed at depth, or enhanced, or completely cancelled. Divers using marijuana while diving frequently report that they suffer more from cold than otherwise. In warm water, marijuana drugged divers become ultra-relaxed, sleepy, and unaware of their surroundings. Consumption of alcohol prior to diving may, with the cumulative effect of alcohol and pressure, induce disorientation, impaired coordi-

94% WORKING GRADUATES

THE NEED FOR COMMERCIAL DEEP SEA DIVERS CONTINUES TO GROW . . . SPECIAL SKILLS ARE NEEDED TO GET AND KEEP A JOB IN INnerspace . . . DIVERS ACADEMY WILL TRAIN YOU TO ENTER THIS HIGHLY REGARDED AND REWARDING PROFESSION.



OWNED AND OPERATED BY DIVERS
INSTITUTE OF TECHNOLOGY
MANAGEMENT

NEW

SEND TODAY

Send \$2.00 for our catalog which contains all pertinent information and disclosures. Approved by C.E.T.A. and meets all state certifications.

DIVERS ACADEMY

OF THE EASTERN SEABOARD

2500 So. Broadway

Camden, New Jersey 08104

(609) 966-1871

NAME

ADDRESS

CITY

ST.

ZIP



UNDERWATER PHOTO EQUIPMENT CATALOG

featuring
• OCEANIC PRODUCTS • NIKONOS • IKELITE
• SUBSEA • SEACOR • AQUACRAFT & OTHER MFGS.

LET US HELP YOU SELECT YOUR UNDERWATER PHOTO EQUIPMENT.

Please write for PRICE QUOTATIONS on U/W camera equipment,
electronic flash units, lenses, & other accessories.

SPECIALISTS IN DIVING EQUIPMENT FOR 25 YEARS

WE STOCK MOST MAJOR BRANDS OF
DIVING EQUIPMENT

Mail Orders Shipped Promptly. Send \$2.00 for Catalogs and Prices

- ☐ SOUND WAVE SYSTEMS
- ☐ TEKNA
- ☐ FARALLON
- ☐ U/W PHOTO CATALOG
- ☐ SCUBAPRO
- ☐ U.S. DIVERS
- ☐ AQUA CRAFT
- ☐ SEACOR

NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____

SUNLAND SPORTS/DIVE SHOP

8677 Wilshire Blvd. Beverly Hills, CA 90211 (213) 652-4990

LET NOVURANIA TRANSPORT YOU TO HIGH ADVENTURE



NOVURANIA inflatables are your best choice for traveling fast & great distances. Operating in foul weather, & launching from rocky shores. Our rigid keel provides a deep V-hull that cuts thru the water providing a smooth & fast ride. Large diameter tubes make for a dry & comfortable ride. Heavy duty hypalon/polyester fabric provides a firm hull that resists abrasion & punctures.
PROKO INTERNATIONAL. Dept SD5, 12511 Beatrice St., L.A., CA 90066

Hey Divers...

STOW IT!

DOLT Deep Water Dive Bag

- Capacity—a huge 4600 cu. in.
- Side pocket holds regulator.
- Super-strong
11 oz. Cordura nylon.
- Nylon upholstery thread
used throughout.
- Drain holes in bottom.
- D-rings for lashing on
a spear gun.



DOLT offers a complete line of dive bags.
There's one to fit your needs!
So take your gear & "stow it" ... in a DOLT!

DOLT / West Ridge Manufacturing
11920 W. Olympic Boulevard
Los Angeles CA 90064 (213) 820-4106
We invite dealer inquiries.



TECHNIFACTS

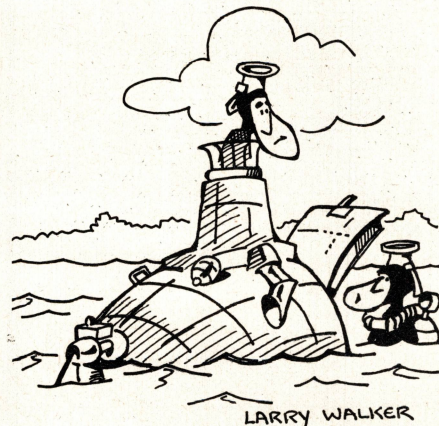
nation, poor judgement, and weakness.

I feel the truly important findings of several researchers who have worked with drug users (in all categories) is in the area of their aptitude for diving. Researchers found, in general, that drug users are basically immature people, who are emotionally unstable, often subject to depression, are relatively slow learners, and who usually have negative attitudes toward fellow divers.

The above is a brief digest of the findings of researchers in the past six or seven years in the use of various drugs by and for divers. In view of these findings and summaries found in several dive accident reports, the following is indicated:

1. Persons who must regularly use antihistamines, motion sickness medications, and other medications to permit diving, should not dive. Divers who use such drugs only occasionally, should not dive when drugged.
2. Persons who must use, or who use for other reasons, any of the so called "social drugs" are not good candidates for safe diving. Certainly they are not safe diving partners.
3. It is the responsibility of the medical profession (who will be familiar with the medical problems of persons in the above two categories) to discourage such patients from diving.

There is no one book dealing with drug use and drug abuse by or for divers. However, there are literally hundreds of reports dealing with these and closely related subjects. Most such reports are listed, and some are presented in digest or summary form, in several bibliographical resource books. If readers would like a short list of these, send a self-addressed, stamped envelope to me, % Technifacts, SKIN DIVER Magazine, 8490 Sunset Boulevard, Los Angeles, California 90069.

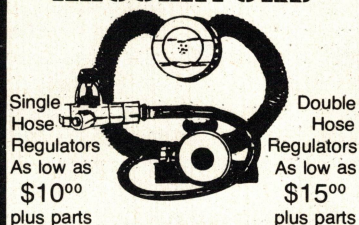


"It's flooded!"

SERVICE

YOU CAN TRUST
YOUR LIFE WITH

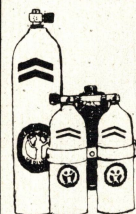
REGULATORS



Single
Hose
Regulators
As low as
\$10⁰⁰
plus parts

Double
Hose
Regulators
As low as
\$15⁰⁰
plus parts

TANKS & VALVES

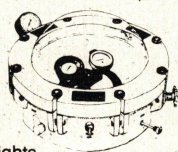


VIP\$2⁵⁰
TUMBLE ..\$10⁰⁰
HYDRO ...\$8⁰⁰
J VALVE ...\$6⁵⁰
K VALVE ...\$4⁵⁰
TWIN
VALVE\$8⁰⁰

ACCURACY TESTS

Oil filled depth gauges\$3⁰⁰
Decompression meters\$6⁰⁰

Our 300 foot
Hydro Chamber



Leakage tests for lights

GUARANTEED SCUBA SERVICE

- ✓ Ultra sonic cleaning
- ✓ Complete disassembly
- ✓ All worn parts re'd
- ✓ Giant parts inventory
- ✓ Fast turn-around service
- ✓ 90 day warranty

FAST & EXPERT MAIL ORDERS

WRITE FOR RATE & SERVICES
BROCHURE

LIGHTHOUSE DIVING CENTER

COMMERCIAL & REPAIR DIVISION

8215 Lake City Way
Seattle, WA 98115
206/524-1633

350 Sunset Blvd. No.
Renton, WA 98055
206/772-1415

2510—6th St.
Bremerton, WA 98310
206/377-9101

LOCK YOUR SCUBA GEAR

BY DR. SAMUEL MILLER

Long absent from the diving fraternity has been a positive means of safeguarding scuba equipment — whether it be in your garage, on the beach or on a boat. Thanks to the sport of bicycling, there are a number of ready-made locks that can be adapted for this task. Most major lock companies are marketing ratchet type bicycle locks. These keen little items, although specifically designed for securing bicycles, adapt very well to the security needs of a scuba diver. They are so designed that the cylinder (the part the key goes in) ratchets on the hasp (the curved "U" shaped part) to any position from approximately 5½ x 1¼ to approximately 1¼ x 1¼.

There are two basic types of locks; with one, the cylinder can be completely removed from the hasp; with the other, the cylinder can be removed from only one side of the hasp. Of course they come in both key and combination locking systems. In addition to the lock, a piece of one-inch wide chain or bicycle locking cable approximately three feet long and a secure object, such as the lifeguard stand, telephone pole, or auto bumper, etc., are the only items needed to complete the "lock kit."

The procedure for securing equipment is quite simple and entails four basic steps:

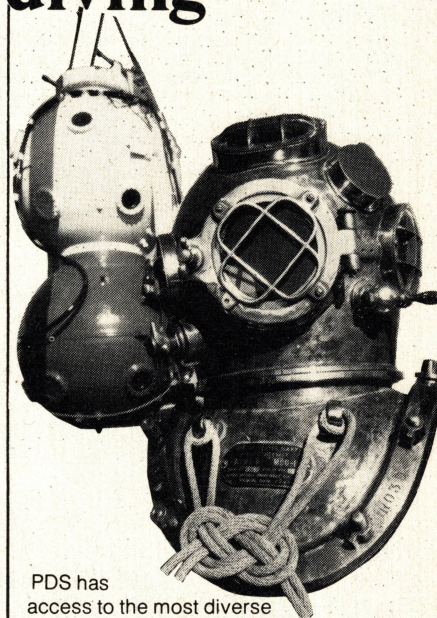
- 1) The lock is unlocked, the cylinder removed from the hasp, and a loop at the end of the chain is placed over the hasp.
- 2) The chain is placed around a secure object, and the other end of the chain is placed over the hasp of the lock.
- 3) The hasp of the lock, with the chain connected, is placed around the valve of the scuba tank under the J-arm, knob, and above the neck of the tank.
- 4) The cylinder of the lock is placed on the hasp and then ratcheted to a secure snug fit.

The tank is now securely fastened to the lock; the lock is secured to the chain; and the chain is wrapped around a permanent object. What could be more secure?

Regulators, spearguns, backpacks, and all other equipment items that have holes in them can be secured on the chain by placing the chain through the hole, between steps 1) and 2) then completing the process. For the regulator, the chain is placed through the yoke (the part that fits over the valve). For the speargun it goes through the trigger guard or muzzle, and for the backpack the chain goes through the D-rings or tank clamp of the backpack.

A fifth step is most important when using this system: *Don't lose your key or forget your lock combination!*

Professional Diving School trains you for all aspects of deep-sea diving



PDS has

access to the most diverse and sophisticated up-to-date underwater equipment in the world, and the experts to train you with it. To completely prepare you for a diving career we offer a comprehensive program — and we offer it for one tuition. Want to find out more? Get our complete catalog and curriculum — don't wait, the future is tomorrow.

NAVY DEEP SEA DIVING DRESS (MARK V), BAND MASKS, KMB, GAS HATS, MIXED GAS, DIVING BELLS, CUTTING & WELDING, SALVAGE, COMMUNICATIONS, PHOTOGRAPHY, TENDING & JOB PROCEDURES, SEAMANSHIP, MEDICAL ASPECTS, CLOSED CIRCUIT TV, OFFSHORE OIL RIG WORK, AND MORE.

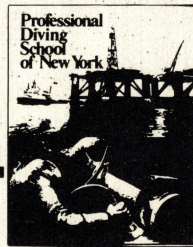
Licensed by
The New York State
Educational Department

Professional Diving School of New York

DIVER TRAINING DIVISION OF
INTERNATIONAL UNDERWATER CONTRACTORS SD-05
222 Fordham Street
City Island, N.Y., N.Y. 10464 / 212-885-0600

Please send me your complete catalog/curriculum and school decal. (Out-of-state residents enclose \$1.00 to cover postage & handling)

NAME _____
ADDRESS _____
CITY _____
STATE _____ ZIP _____
TELEPHONE _____



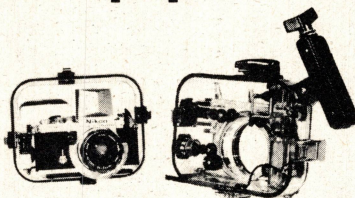
Midwest headquarters for underwater photo equipment

Nikon F2/housing

The Ikelite housing is designed to accommodate many of the viewfinder systems (including the Action finder!). Controls for shutter speed, shutter release, film advance and meter switch.

Nikon F2, chrome w/50mm f2 lens & Ikelite housing no. 5522 \$ 653.95*

Nikon FM, chrome w/50mm f2 lens & Ikelite housing no. 5528 \$ 489.45*



Nikonos III

Just grab your Nikonos III camera and dive in! It's waterproof and pressureproof to depths of 160'. With its slight negative buoyancy and oversize controls, the Nikonos handles easily underwater.

Nikonos III w/35mm f2.5 lens . . . \$ 389.00*

* Prices subject to change and do not include shipping charges.



HELIX

325 West Huron Street, Chicago, Illinois 60610
312/944-4400

We have one of the largest underwater photographic inventories in the U.S. Write for our new underwater catalog and info on Helix photo/dive trips to various sites around the world!

A CAREER
AS A
PROFESSIONAL

SCUBA INSTRUCTOR

The demand for both men and women diving instructors is growing rapidly. Many dive shops and resorts are having difficulty locating professional instructors who hold multiple skills to fill these positions.

FLA P.D.I.C. OFFERS 3 MULTI-RATING INSTRUCTOR TRAINING COURSES

10-WEEK RESIDENT ★ INTENSIFIED 14 DAY ★ 8 WEEK-END

All courses include: Scuba, C.P.R., Basic U/W Photography and equipment repair instructor.



FLORIDA PROFESSIONAL DIVING INSTRUCTORS COLLEGE

5627 Arlington Rd., Jacksonville, FL 32211 (904) 744-4518

Send \$1.00 for career booklet

Member: National Scuba Training Council, P.D.I.C., I.D.E.A. and P.A.D.I.



Sea Symbols®

by Robert L. Straight

Four eye Butterfly fish

Sterling Silver \$28.50

14K Gold \$280.00

Jackknife-Fish

Sterling Silver \$25.00

14K Gold \$105.00

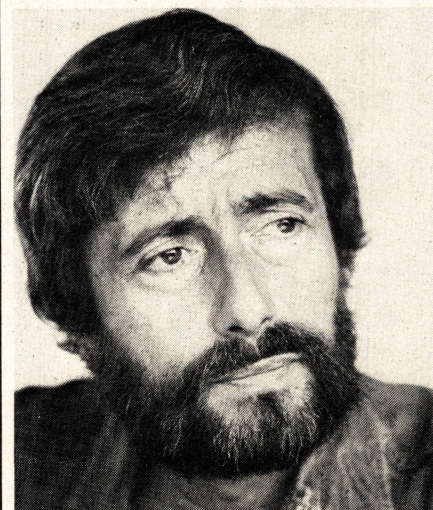
About the Artist

A unique combination of diver and sculptor, Robert L. Straight using his knowledge of the underwater world has created a truly unique collection of jewelry and sculpture from the sea. Fashioned for those divers who want only the very best and have the highest regard for the underwater world.

For catalog send \$1.00 to: Robert L. Straight
8439 Barkley, Houston TX 77017 713/643-4051

COUSTEAU'S PROJECT OCEAN SEARCH

For the seventh consecutive year, Jean-Michel Cousteau is making it possible for a relative few to join him and his team of scientist/divers on another series of Project Ocean Search Expeditions to be conducted on islands in the Atlantic, Pacific, and South Pacific Oceans and in the Caribbean Sea. The Pacific expedition will have two sessions: June 11 through June 20 and June 25 through July 4. The Atlantic expedition will take place from July 9 through July 18. And the Caribbean trip will be from July 23 through August 12.



Cousteau, eldest son of ocean explorer Jacques-Yves Cousteau and an accomplished marine architect, diver, film maker and oceanologist in his own right, leads and directs each expedition himself. His non-profit educational and research foundation, The Jean-Michel Cousteau Institute was established in 1977.

Conducted in association with the University of Southern California College of Continuing Education and The Institute for Marine and Coastal Studies, Project Ocean Search offers optional Continuing Education Contact Hour credit to participants who desire it for upgrading teaching certificates or converting it to regular academic college credit.

Prior formal knowledge of the marine sciences is not required for participation on a Project Ocean Search adventure. The only firm requirements for joining are a minimum age of 16, good health and a serious interest in discovering more about the ocean world first hand.

For information about any of the Project Ocean Search Expeditions contact: Project Ocean Search, The Jean-Michel Cousteau Institute, P.O. Drawer CC, Harbour Town, Hilton Head Island, South Carolina 29928.

Follow the Leader

Deep sea diving career?

Get your info from the best source. We'll give you the most complete info package about the fantastic opportunities in commercial diving. Honest up-to-date info about:

- where the jobs are
 - how big the pay is
 - how you can qualify
 - the good news and the bad
 - and we'll answer all your questions or refund your money!
- SEND FOR YOURS TODAY!**

Commercial Diving Center

272 Fries Ave.
Wilmington, CA 90744
Tel. (213) 834-2501

MEMBER: ASSOCIATION OF COMMERCIAL DIVING EDUCATORS.



SD5-9

COMMERCIAL DIVING CENTER

272 Fries Avenue
Wilmington, CA 90744
Tel: (213) 834-2501

CDC is the only Diver Training Division of OCEANEERING INTERNATIONAL, INC. with companies in over 17 foreign countries.

☐ I enclose \$2 for my copy of "Your Deep Sea Diving Career" CDC's big new two-in-one catalog.

☐ Enclosed is an extra \$1 for Special Service.

NAME

AGE

ADDRESS

TELEPHONE

CITY

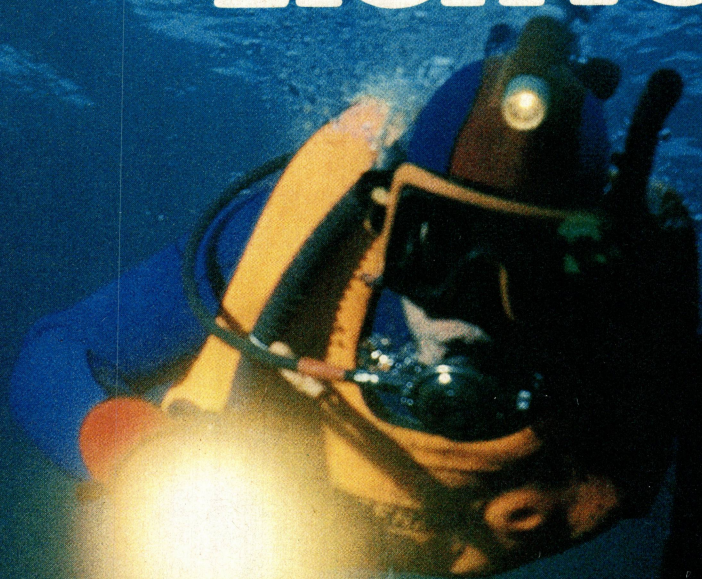
STATE

ZIP

NOTE: FUNDS IN U.S. DOLLARS ONLY (CASH, CHECK OR MONEY ORDER). NO FOREIGN FUNDS CAN BE ACCEPTED

IN THE DARK

ABOUT DIVE LIGHTS?



In the April issue, SKIN DIVER gave readers guidelines for choosing the underwater lights best suited for their particular needs. This month, we present specs and information on dive lights. Unfortunately — or fortunately for the consumer — equipment manufacturers are constantly changing their lines. Therefore, some manufacturers have new lights which were not available for evaluation when this article was prepared. Check out the latest dive lights in equipment catalogues at your local dive store.

For this survey 13 dive light manufacturers/distributors submitted a total of 32 dive lights in "over-the-counter condition" for comparison and evaluation. The information presented on each of the lights was obtained from the manufacturers' own literature, from data published on General Electric light bulbs, from personal conversations with the manufacturers or distributors, and from personal inspections of each light. Measurements of the lights' dimensions and weights (with batteries) — both in air and in salt water — were made by the author. Light (beam) intensity (brightness) for each of the dive lights was provided by the manufacturer, if available. If the manufacturer did not have that information, or did not wish to supply it, an N/A (not available) was recorded. Such a response, however, should not reflect poorly on the manufacturers. The

problem lies not with them, but in the procedures used in determining a lamp's intensity in terms of candlepower. Slightly different methods of measuring a lamp's beam can give widely differing results, creating a controversy over candlepower ratings that some would rather avoid. Still, beam intensity is an important characteristic of dive lights — but so are beam angle and light duration.

To help in comparing the dive lights in this survey, two tests were conducted to measure these characteristics. In the first test, light duration (light fall off) was measured. The dive lights with fully charged rechargeable batteries or with fresh disposables (D-cells were alkalines where recommended; otherwise heavy duty carbon-zincs were used) were set on a test stand, and one point of the beam was measured shortly after turning the light on, and at 10 minute intervals thereafter, until the lights (or the author) were exhausted. The measurements were made with a precision light meter, and plotted as a percentage of the initial reading. The rechargeable lights all died out within a few hours, but the lights with disposable batteries burned for several hours more. In the first run, the disposables were measured for up to seven hours — results of this run are labeled A on the appropriate graphs. After a 17 hour rest period, during which the batteries (and the author) recov-

PART II: UNDERWATER LIGHT SPECIFICATIONS By George Cozens

ered somewhat, the test was continued for another four hours on the lights that survived the first seven hour run. These results are listed as C. These same lights were still functioning after run, C (so far, over 14 hours of operation). To finish them off, a fourth run (plotted as D) was made after a rest/recovery period of about 116 hours. All of the lights in this test were periodically measured until their intensities dropped to about one percent of their own initial values. This was done for comparative purposes in some cases, the last few percents do not represent any usable light (especially for the lights that were less bright initially). A number of the lights exhibited a very sharp drop in intensity within the first 10 minutes — this is assumed to be caused by a surface charge on the batteries, which creates an initial surge of power, but quickly wears off. The arrow at the 15 minute mark indicates the relative position on this graph at which the second test was made.

This second test was conducted to measure the beam brightness and beam angle of the dive lights *while underwater*. To the author's knowledge, this is the first time an underwater evaluation of dive lights has been made in this type of survey. In this test, the lights started with fresh disposable or fully charged batteries, and were turned on for approximately 15 minutes before any measurements were taken (to eliminate the effects of surface charge). Each dive light was secured to a fixture (underwater, in a special testing tank) and after the 15 minute "burn-in" period, the dive light was rotated in an arc. At one degree (1°) intervals during the rotation, light meter readings were taken across the entire width of the beam, at a distance of about seven feet from the lamp. (At 7 feet, a 1° arc distance, between readings, is about 1½ inches).

The light measurements were made in terms of footcandles and plotted by degrees right or left from the approximate center of the beam. Because this test was conducted underwater, the results already include the effects of refraction on the light beam pattern (something corresponding tests in air don't do).

The results from some of the lights indicate strange beam patterns, with dips in the graphs indicating darker regions of the beam, and peaks indicating brighter areas. These could be verified by pointing the light at a wall and observing similar brighter and darker areas.

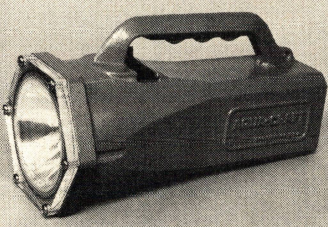
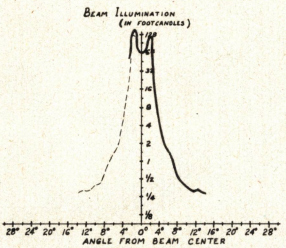
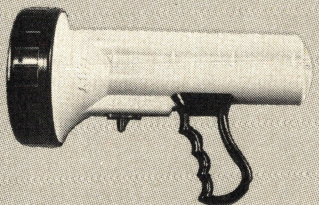
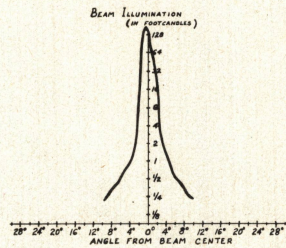
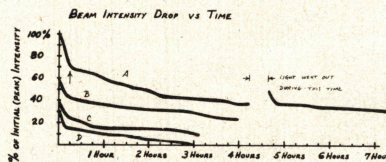
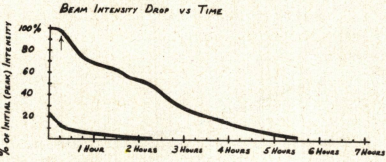
Although great effort was made to ensure accurate measurements, the results of these tests should only be taken as approximate, representative patterns for the types of lights tested. A dive light taken from the shelf of a dive shop, or from the production line of a manufacturer, and run through these tests may perform a little differently than its counterpart in this survey — owing in part to the differences in mass-produced items, as well as differences in handling, shipping, and length and method of storage.

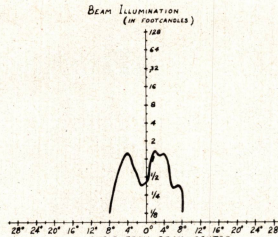
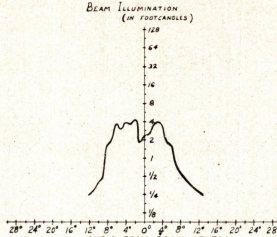
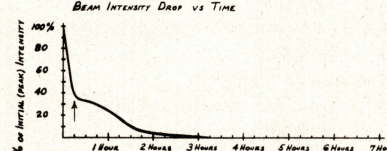
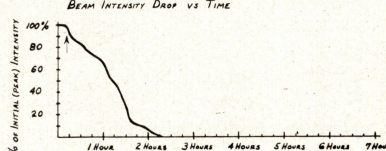
You will notice that even in this survey there are lights with supposedly identical bulb and battery combinations which have fairly different beam patterns. The differences here are most likely related to where the miniature bulbs (or the lamp filaments of sealed beams) are positioned in their reflectors. If the bulb or filament is at the reflector's focal point, the light is focused, and a bright, concentrated beam is achieved; if not, the beam will be spread out and less bright. Dive lights with miniature bulbs in separate reflectors and even lights with sealed beam lamps can get out of focus (and, thus, give poorer performance) if the bulb or the filament (of the sealed beam) is displaced from the reflector's focal point by physical shock, vibration, or other abuse.

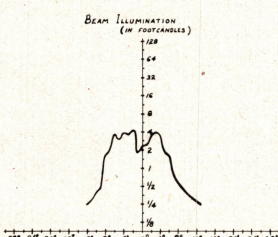
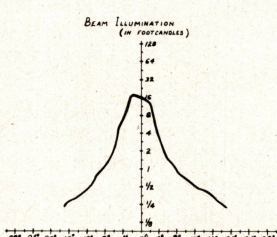
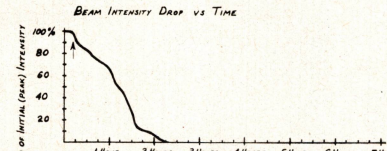
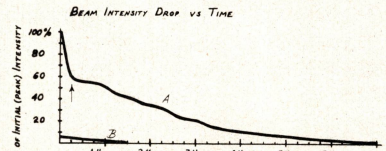
The author wishes to express appreciation to the dive light manufacturers and distributors for their cooperation with this survey, and to the following, for their technical assistance: General Electric Company, Lamp Marketing Dept., Los Angeles Office, Battery Business Dept., Los Angeles and Gainesville, Fla. Offices, and Rick Dixon, Elpower Corporation, Santa Ana, Ca.

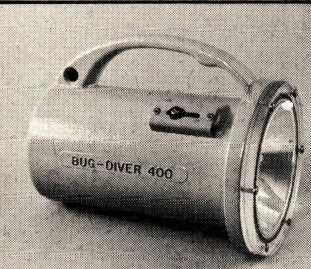
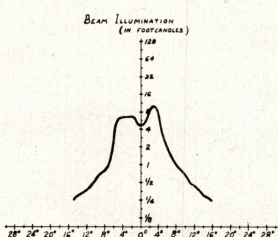
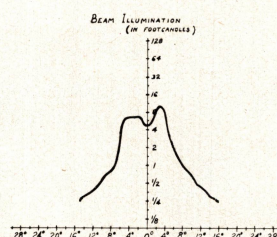
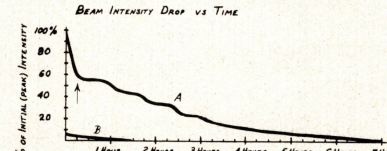
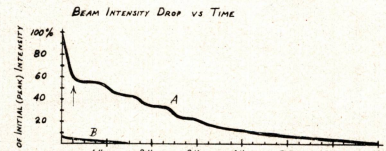
Basic Data • Performance Charts

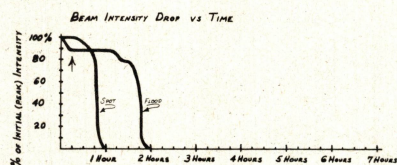
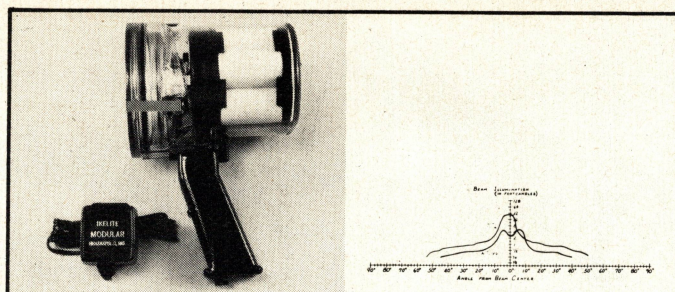
photography by Geri Murphy

 	 
	
MFG: Aqua-Craft MODEL: Aqua-Lite #A-288 WEIGHT (lbs.): Air 6.6/Salt water 0.7 neg. BULB: Sylvania PR20 (replaceable reflector) PRICE: \$79.50 NOTES: Uses 8 D-cells, alkalines recommended. Sliding magnet operates a reed switch inside housing.	MFG: Cressi-Sub MODEL: Astro #900 WEIGHT (lbs.): Air 3.3/Salt water 0.2 neg. BULB: PR18 (replaceable reflector) PRICE: \$39 NOTES: Sliding magnet operates a reed switch inside housing. Handle is removable; check to be sure it is securely attached. Uses 6 D-cells.

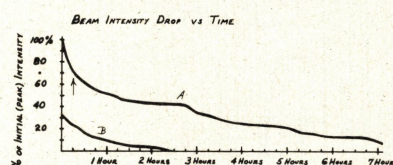
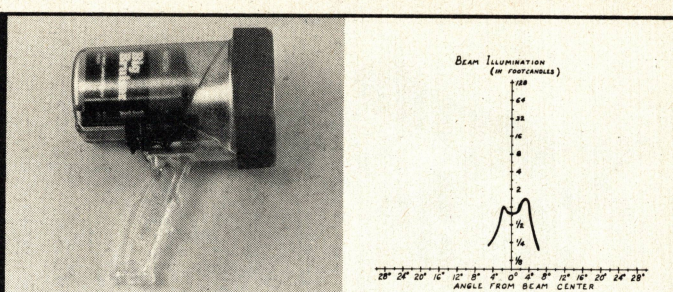
	
	
	
MFG: Dacor Corp. MODEL: UL 700 (Disposable Battery) WEIGHT (lbs.): Air 3.0/Salt water 0.7 pos. BULB: GE4547-4 (sealed beam) PRICE: \$27.50 NOTES: Uses 6 volt lantern battery (heavy duty recommended). Toggle switch sealed with rubber boot. Floats beam up.	MFG: Dacor Corp. MODEL: UL 800 (Rechargeable out of case) WEIGHT (lbs.): Air 3.7/Salt Water 0.1 pos. BULB: GE4547-4 (sealed beam) PRICE: \$73 NOTES: Uses 6 volt rechargeable gel cell (#UL7V). Fully charged in 10 to 15 hours. Charger is included. Floats beam up.

	
	
	
MFG: Dacor Corp. MODEL: UL 900 (Rechargeable in case) WEIGHT (lbs.): Air 3.8/Salt Water 0.1 neg. BULB: GE 4547-4 (sealed beam) PRICE: \$80 NOTES: Uses 6 volt rechargeable gel cell (#UL7V). Charging time 10 to 15 hours. Charger is included. Floats beam up.	MFG: Darrell-Allen Corp. MODEL: Sport Diver 250 (Disposable Battery) WEIGHT (lbs.): Air 4.5/Salt water 0.2 pos. BULB: GE #500 (replaceable reflector) PRICE: \$40 NOTES: Uses 10 D-size cells. Sliding permanent magnet operates a sealed reed switch. Floats beam up.

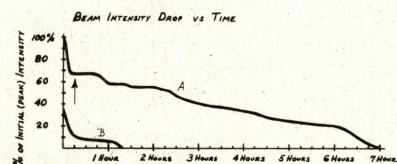
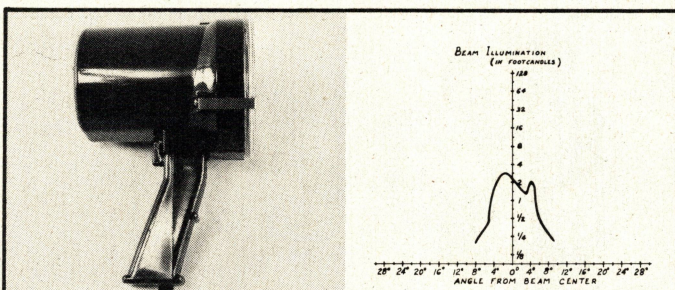
	
	
	
MFG: Darrell-Allen Corp. MODEL: Bug Diver 400 (Disposable Battery) WEIGHT (lbs.): Air 6.1/Salt water 1.3 neg. BULB: GE #500 (replaceable reflector) PRICE: \$51 NOTES: Uses 10 D-size cells. Sliding permanent magnet operates a sealed reed switch. Good written instructions included.	MFG: Darrell-Allen Corp. MODEL: Dive Bright 500B (Disposable Battery) WEIGHT (lbs.): Air 6.3/Salt water 1.4 neg. BULB: GE #500 (replaceable reflector) PRICE: \$59 NOTES: Uses 10 D-size cells or rechargeable ni-cads. Sliding permanent magnet operates a sealed reed switch.



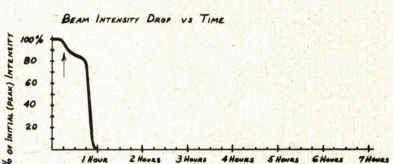
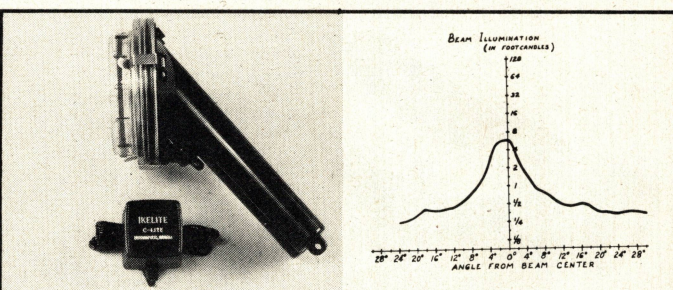
MFG: Ikelite Underwater Systems
 MODEL: Modular Superlite 1085 (black)/1095 (clear) (Rechargeable)
 WEIGHT (lbs.): Air 4.4/Salt water 0.5 neg.
 BULB: GE4308 (dual filament sealed beam) PRICE: \$159.95
 NOTES: Uses rechargeable ni-cad battery pack. Charging time 15 hours. Charger is included. Three position switch: spot, flood, and lockable "off."



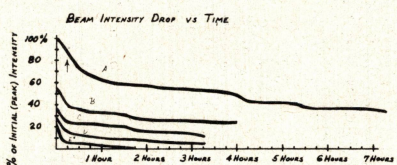
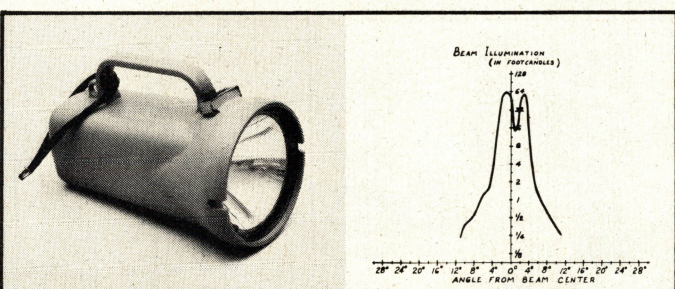
MFG: Ikelite Underwater Systems
 MODEL: Ikelite II 1021 (clear)/1011 (white) (Disposable Battery)
 WEIGHT (lbs.): Air 3.3/Salt water 0.5 pos.
 BULB: GE4546-4 (sealed beam) PRICE: \$26.95 (clear); \$24.95 (white)
 NOTES: Improvements made on an earlier design. Owners of early Ikelite II's may send lights to Ikelite for free correction of an early O-ring problem.



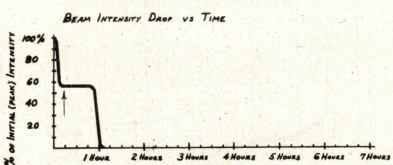
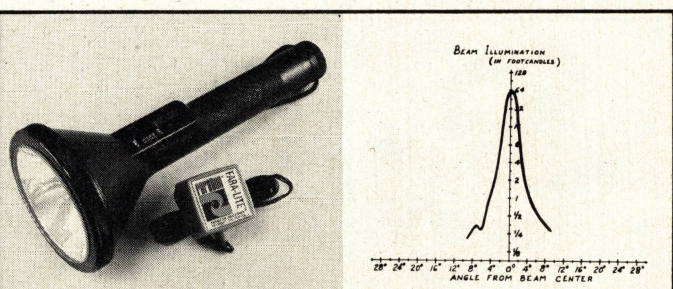
MFG: Ikelite Underwater Systems
 MODEL: Modular X 1081 (black)/1091 (clear) (Disposable Battery)
 WEIGHT (lbs.): Air 3.9/Salt water 0.1 neg.
 BULB: GE4309 or 4329 (sealed beam) PRICE: \$39.95
 NOTES: Uses 6 D-cell alkaline batteries. By changing bulb and battery pack, Modular X can be converted to an Ikelite Superlite or a Movielite.



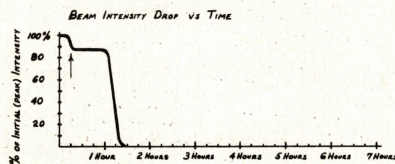
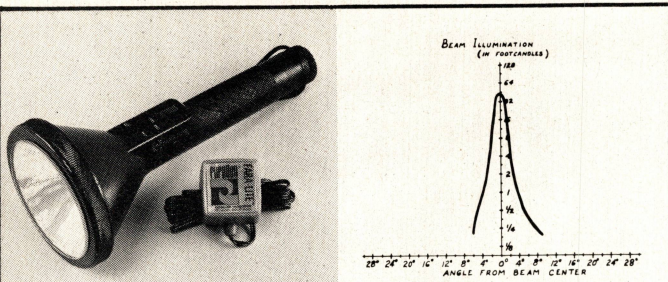
MFG: Ikelite Underwater Systems
 MODEL: C-Lite II #1050 (Rechargeable)
 WEIGHT (lbs.): Air 2.3/Salt water 0.1 neg.
 BULB: GE4645 (sealed beam) PRICE: \$79.95
 NOTES: Uses 6 rechargeable ni-cad batteries. Charging time 15 hours. C-Lite I is a less expensive, less intense, disposable battery version.



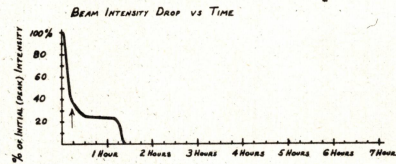
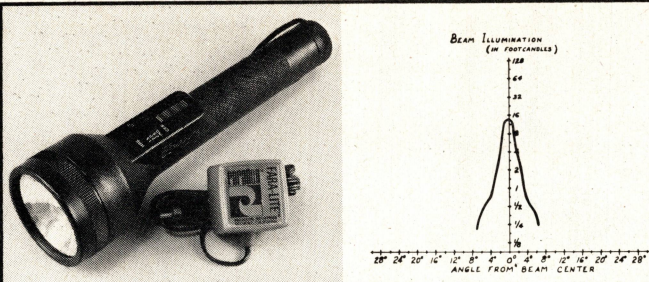
MFG: National Divers
 MODEL: NDL 100
 WEIGHT (lbs.): Air 5.4/Salt water 1.3 neg.
 BULB: GE PR20 (replaceable reflector) PRICE: \$57
 NOTES: Uses 8 D-cells. Sliding magnet operates a reed switch inside housing. A brighter bulb (PR18) may be used but lifetime is 3/4 shorter.



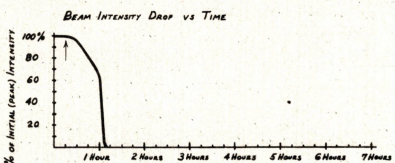
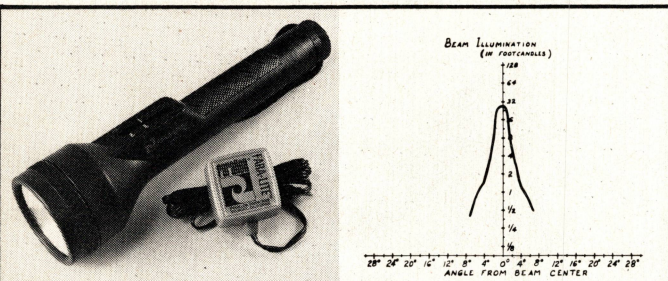
MFG: Oceanic/Farallon
 MODEL: Fara-Lite #06-1001 (Rechargeable)
 WEIGHT (lbs.): Air 1.8/Salt water 0.1 neg.
 BULB: GE157-300 (separate reflector) PRICE: \$99.95
 NOTES: Also available with low intensity bulb. Beam width is adjustable. Charging time 12 to 14 hours.



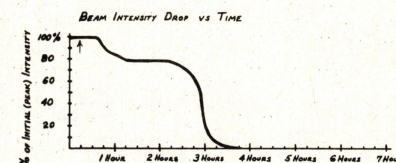
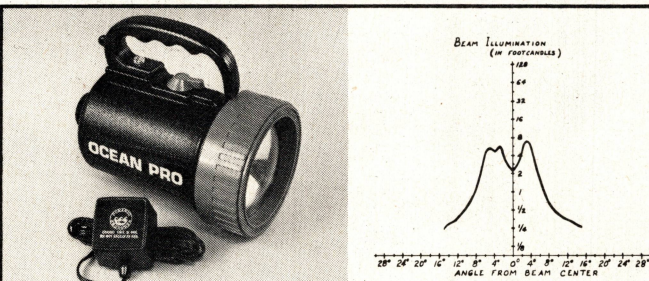
MFG: Oceanic/Farallon
 MODEL: Fara-Lite #06-1002 (Rechargeable)
 WEIGHT (lbs.): Air 1.8/Salt water 0.1 neg.
 BULB: GE157-300 (separate reflector) PRICE: \$74.95
 NOTES: Charging time 12 to 14 hours. Charger is included. Also available with low intensity bulb. Beam width is adjustable.



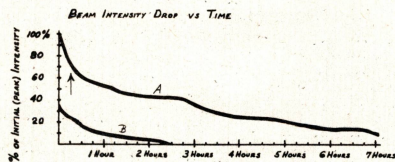
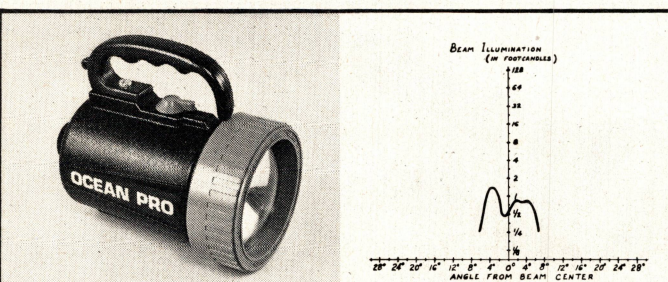
MFG: Oceanic/Farallon
 MODEL: Fara-Lite #06-1011 (Rechargeable)
 WEIGHT (lbs.): Air 1.0/Salt water 0.2 pos.
 BULB: GE157-300 (separate reflector) PRICE: \$99.95
 NOTES: Magnetic slide switch has "off," "indicator," and three intensity positions, ranging from 2.5 hours (low intensity) to 1.5 hours (high intensity).



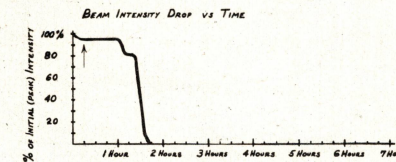
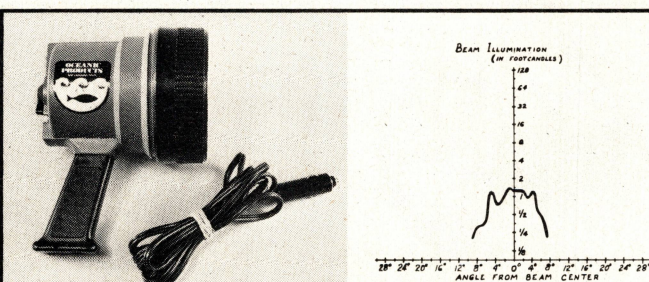
MFG: Oceanic/Farallon
 MODEL: Fara-Lite #06-1022 (Rechargeable)
 WEIGHT (lbs.): Air 1.0/Salt water 0.2 pos.
 BULB: GE157-300 (separate reflector) PRICE: \$74.95
 NOTES: Charging time 12 to 14 hours. A low intensity bulb (GE #605) is also available. (Light duration is about doubled at one-half intensity.)



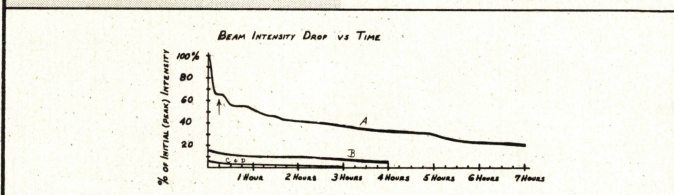
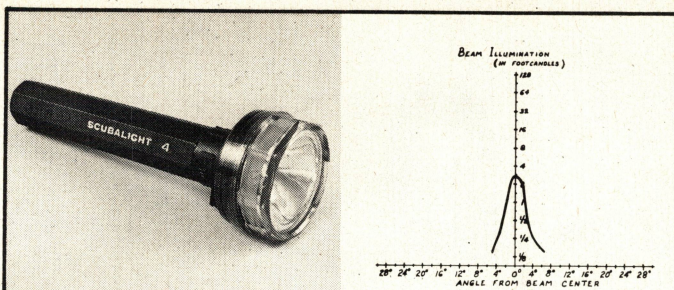
MFG: Oceanic/Farallon
 MODEL: Ocean Pro #OP-101 (Rechargeable)
 WEIGHT (lbs.): Air 5.0/Salt water 0.3 neg.
 BULB: GE4547 (sealed beam) PRICE: \$84
 NOTES: High intensity bulb (GE #4515) provides higher intensity but shorter duration. Uses rechargeable gel cell. Charging time 16 hours.



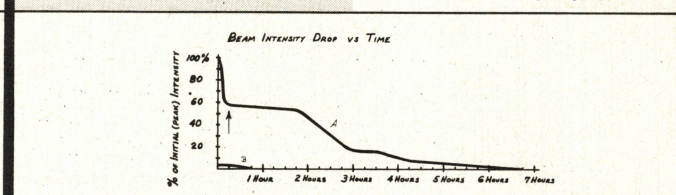
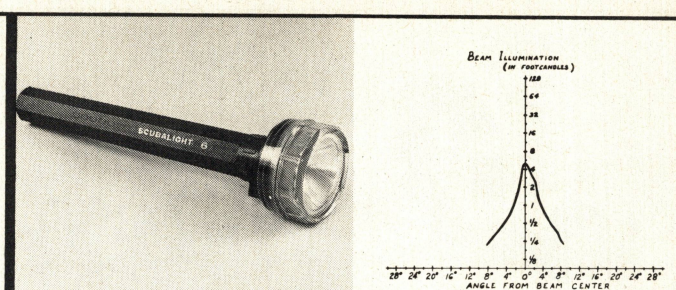
MFG: Oceanic/Farallon
 MODEL: Ocean Pro #OP-100 (Disposable Battery)
 WEIGHT (lbs.): Air 3.9/Salt water 0.8 pos.
 BULB: GE4546 (sealed beam) PRICE: \$36
 NOTES: Uses 6 volt lantern battery. Can be upgraded to Ocean Pro #OP-101 by installing rechargeable battery unit and GE #4547 bulb.



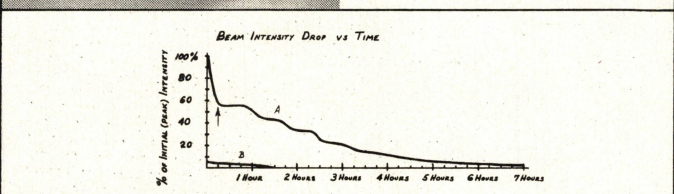
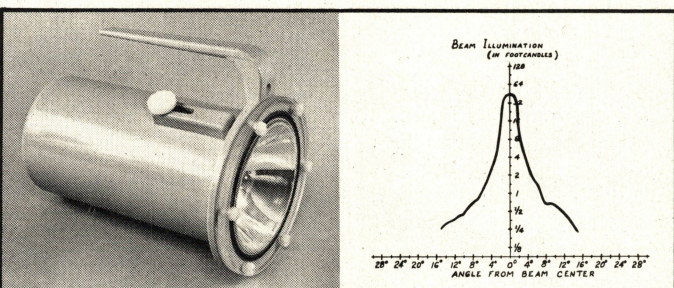
MFG: Oceanic/Farallon
 MODEL: Ocean Sealight #OS-100 (Rechargeable)
 WEIGHT (lbs.): Air 2.4/Salt water 0.8 pos.
 BULB: GE4547 (sealed beam) PRICE: \$79.50
 NOTES: Built-in charging circuit. Charging time 16 hours. Uses ni-cad batteries.



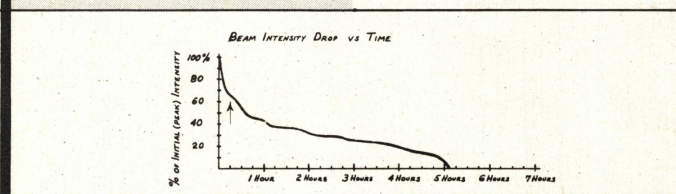
MFG: Scubapro
 MODEL: #30-541 (Disposable Battery)
 WEIGHT (lbs.): Air 1.9/Salt water 0.1 neg.
 BULB: PR17 (separate reflector) PRICE: \$28
 NOTES: Uses 4 D-cells. Rotating switch is lockable in "off" position. Bracket for spare bulb is located under reflector.



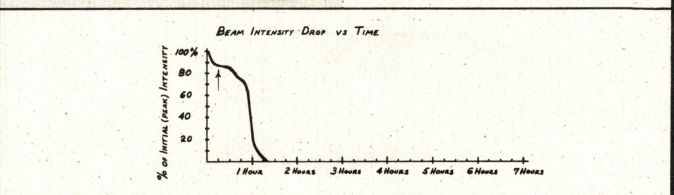
MFG: Scubapro
 MODEL: #30-540 (Disposable Battery)
 WEIGHT (lbs.): Air 2.6/Salt water 0.4 neg.
 BULB: PR18 (separate reflector) PRICE: \$34
 NOTES: Uses 6 D-cells. Light housing is almost 5 inches longer than model #30-541. It also has lockable switch and spare bulb bracket.



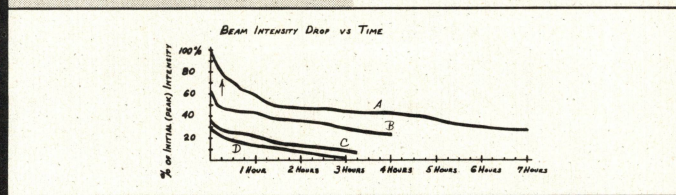
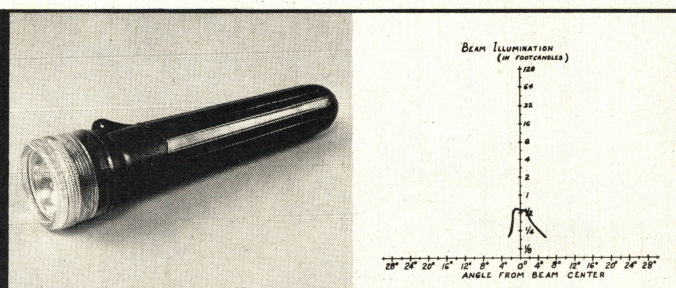
MFG: Serl Underwater Products
 MODEL: Serl Dive Light (Disposable Battery)
 WEIGHT (lbs.): Air 4.8/Salt water 0.1 pos.
 BULB: GE #500 (separate reflector) PRICE: \$44.95
 NOTES: Uses 10 D-cells. (Mfg. suggests using only carbon zinc batteries.) Lockable magnetic slide switch. Floats beam up.



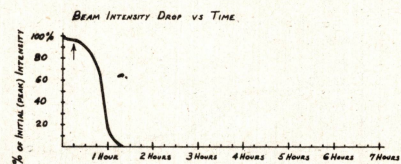
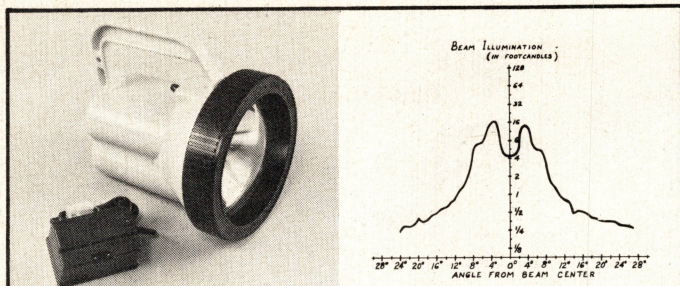
MFG: Tekna
 MODEL: Tekna-Lite II (Disposable Battery)
 WEIGHT (lbs.): Air 0.2/Salt water 0.1 neg.
 BULB: GE 222 (no reflector) PRICE: \$9.95
 NOTES: Uses 2 AA-cells. Additional bulb (included) flashes, for use as mini-marker. Light is activated by turning lens clockwise one-quarter turn.



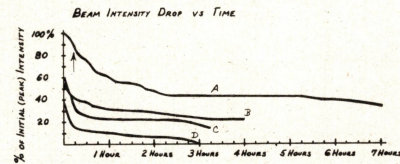
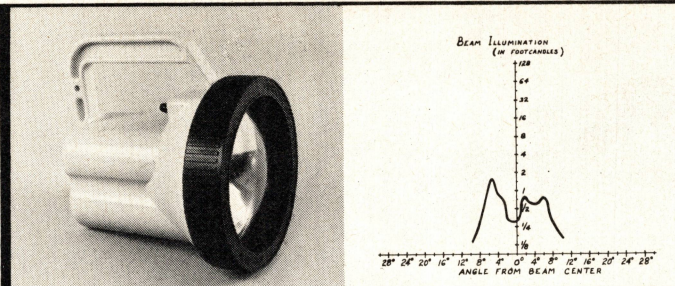
MFG: Tekna
 MODEL: Tekna-Lite (Rechargeable)
 WEIGHT (lbs.): Air 0.5/Salt water 0.1 pos.
 BULB: GE PR-13 (separate reflector) PRICE: \$34.95
 NOTES: Charging time 14 to 16 hours. Ni-cad battery pack can be replaced with 4 AA-cells. To prevent flooding, use caution when turning lens.



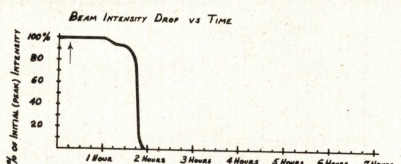
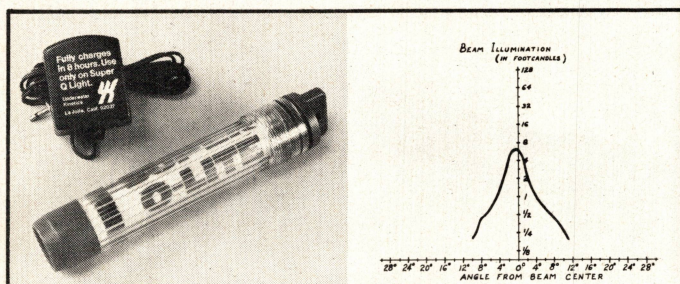
MFG: U.S. Cavalero, Inc.
 MODEL: #311000 (black) #312000 (yellow) (Disposable Battery)
 WEIGHT (lbs.): Air 1.1/Salt water 0.3 neg.
 BULB: GE PR7 (separate reflector) PRICE: \$10
 NOTES: Uses 3 D-cells. Rotating lens activates light. Use caution while turning off to avoid flooding.



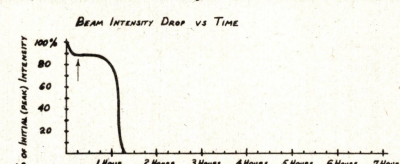
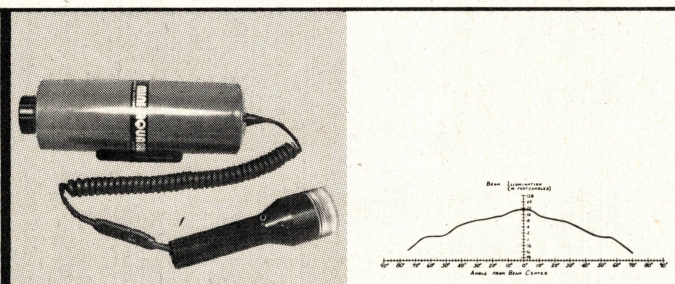
MFG: U.S. Divers Co.
 MODEL: Brite-Lite #7297-00 (Rechargeable)
 WEIGHT (lbs.): Air 5.5/Salt water 0.5 neg.
 BULB: GE4576 (sealed beam) PRICE: \$89.95
 NOTES: Uses rechargeable sealed lead-acid battery. Recharging time 12 hours. Toggle switch sealed with rubber boot. Floats beam up.



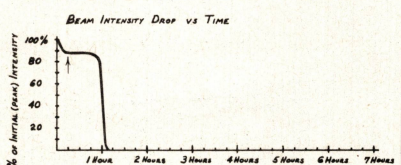
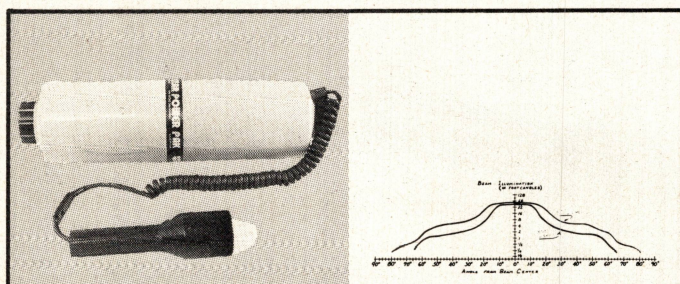
MFG: U.S. Divers Co.
 MODEL: Brite Lite II #7298-00 (Disposable Battery)
 WEIGHT (lbs.): Air 3.5/Salt water 1.4 pos.
 BULB: GE4647 (sealed beam) PRICE: \$39.50
 NOTES: Uses 4 D-cells (alkaline recommended). Toggle switch is sealed with rubber boot. Floats beam up.



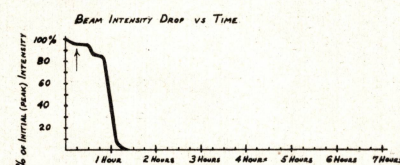
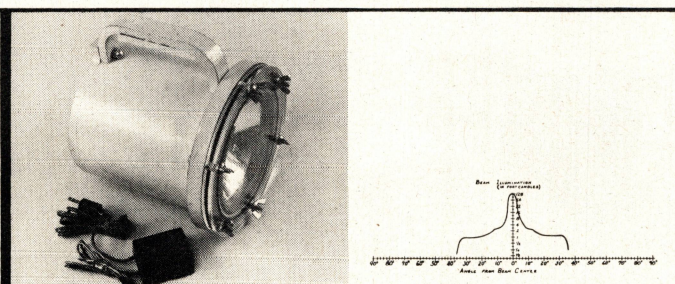
MFG: Underwater Kinetics
 MODEL: Super Q-Lite (Rechargeable)
 WEIGHT (lbs.): Air 0.4/Salt water 0.2 neg.
 BULB: Quartz halogen (reflector/bulb preset unit) PRICE: \$39.95
 NOTES: End caps and battery jacket glow in the dark. Rotating end plug activates light. Uses rechargeable ni-cad battery. Recharging time 8 hours.



MFG: Underwater Kinetics
 MODEL: Mini-Aqua Sun M400 (Rechargeable)
 WEIGHT (lbs.): Air 5.5/Salt water neutral
 BULB: Quartz halogen PRICE: \$250
 NOTES: Uses rechargeable ni-cad in separate battery pack. Can also be used as a movie light.



MFG: Underwater Kinetics
 MODEL: Aqua Sun (Rechargeable)
 WEIGHT (lbs.): Air 11.0/Salt water neutral
 BULB: Quartz halogen PRICE: \$500
 NOTES: Combines M100 modular ni-cad power pack with M301 lamp head. Can be used as a movie light. Set-up permits use of multiple light heads.



MFG: Underwater Specialty Co.
 MODEL: Captain Nemo (Rechargeable)
 WEIGHT (lbs.): Air 12.0/Salt water 1.3 neg.
 BULB: Quartz halogen PRICE: \$250
 NOTES: Uses 2-6 volt rechargeable lead-calcium gel cells. Fully charged in 20 hours with standard charger, in 8 hours with deluxe charger (optional).

47th STREET NIKON, CANON AND IKELITE UNDERWATER PHOTO COMBINATIONS



NIKONOS III w/35mm lens	374.50
Sekonic L164 Marine Meter	114.90
Pentax ME w/f1.7 w/5536 Housing	382.50
Toshiba TM-1 Underwater Flash	113.90
Polaroid SX-70 w/5870 Housing	188.50
Olympus OM-1 w/f1.8 w/5565 Housing	399.50
Canon GIII w/5617 Housing	209.50
Canon AE-1 w/f1.8 w/5375 Housing	424.95
Canon F-1N w/f1.8SC w/5570 Housing	609.50
Minolta SRT-201 w/f1.7 w/5560 Housing	379.50
Konica C35AF w/5654 Housing	269.50
Konica TC w/f1.7 w/underwater housing	362.50
Minolta 110 SLR Zoom w/5372 Housing	289.50
Sunpak Marine 28	314.50
Sunpak 311 w/4533 Housing	116.50
Canon 514XLS 7.5-60mm f1.4 w/5716 Hous	409.50
New low lite Canon 310XL w/5713 Housing	238.90
Vivitar 283 Flash w/4228 Housing	144.50
Kodak Pocket 708 w/5369 Housing	109.50
Honeywell 682S Flash w/underwater housing	159.00

We carry the full Ikelite line • Call or write for our low, low prices.

Send your inquiries to: Dept. W

47th STREET PHOTO INC.
TEL (212) 260-4410
67 W. 47 Street, New York, N.Y. 10036
Toll Free Orders Only **800-223-5661**

NEW METHOD! Only \$42.50



20/20 vision underwater with prescription faceplate lenses. The method of bonding lenses to the mask is the only one which corrects exactly as your glasses do.

Individually analyzed by an optometrist experienced in the problems of under water vision. Lenses as large as any manufactured. Used by U.S. Navy underwater training facilities as well as State agencies. To order send copy of prescription, distance between eyes, and mask or plate only. Prescription swim goggles also available. Bitocals, \$14.00 extra. Air mail \$1.00 extra. WE CAN OBTAIN COMPLETE INFORMATION FROM YOUR GLASSES. SEND FOR FREE LITERATURE. UNCONDITIONALLY GUARANTEED.

A. S. NEWTON, O.D.
575 6th St., San Pedro, Calif. 90731, 213-832-7300

DIVE WITH

SUPER SNORKEL



INCLUDES:

- diaphragm compressor
- 3 h.p. 4-cycle engine
- 2 demand regulators
- 2 hoses (40' each)
- float inflator
- diver's flag
- Stores in space 19" x 19" x 13"
- Quick set up without tools
- Light weight: < 40 lb.

INNOVATIVE DESIGNS INC.
1870 Oak Creek Dr., Dunedin, FL 33528
(813) 784-5349

TEKNA'S TEAM

Tekna, of Menlo Park, California, has announced recent promotions and additions to its management team. Sherry Burr has been named regional sales



manager and, in this capacity, is responsible for the sales effort in the Midwest, Southeast, and Canada. Burr is a graduate of Carroll College in Montana. Prior to her recent promotion, she served as purchasing manager for Tekna.



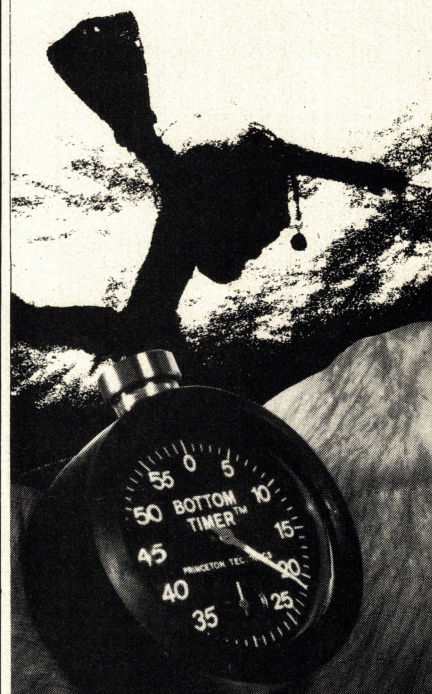
Barry Berke has been named Tekna's operations manager. An aeronautical engineering graduate of Ohio State, Berke has recently completed requirements for his MBA and has worked in production and management for several firms in the electronic industry.

LEACH PHOTO EXPANDS

Harry Leach, president of Leach Photo Systems, has announced that because of rapid growth in the underwater photo market, his company is expanding to larger facilities in southern Oregon. Housed in its new three story building, Leach Photo Systems will continue to provide the national market with high quality, reliable strobes, housings and accessories. The new address is: Box 75, Keno, Oregon.

Bottom Timer—

**the only way
to time a dive
(automatically)**



Bottom Timer is the first & only fully automatic underwater stopwatch. When you reach an approximate depth of five to nine feet, the watch immediately begins to record the time of your dive. No fiddling, no math, no memory lapse—in fact, you can't forget to time your dive, Bottom Timer won't let you.

Bottom Timer features luminous numbers, a big minute hand, remote second hand, a Lexan® inner case with a tough Kraton® outer case, Velcro® strap, chrome plated brass winding stem and optional high altitude adjustment screw and Gage-Mount™. And if you really want to be choosy, Bottom Timer is available in three dial-face colors—orange, blue and basic black.

SEE BOTTOM TIMER AT YOUR LOCAL DIVE SHOP OR FOR MORE INFORMATION, SEND FOR OUR FREE BROCHURE.

**PRINCETON
TECTONICS**



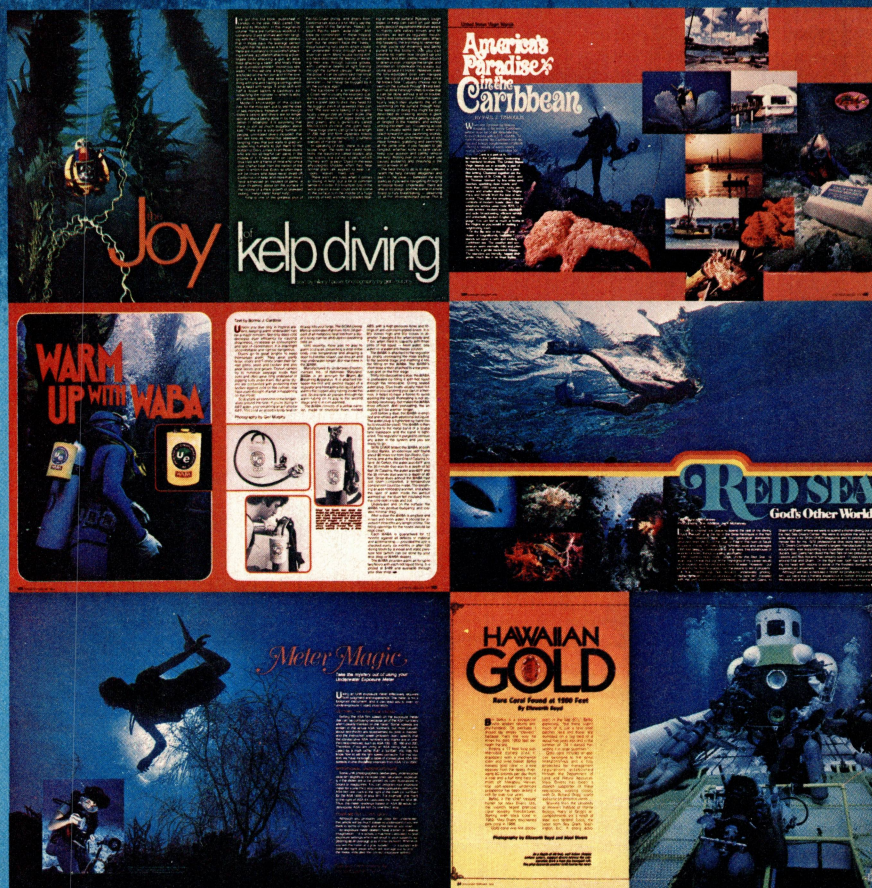
P.O. BOX 764, HIGHTSTOWN, N.J. 08520
Dealer inquiries welcomed (609) 448-2726

WE'RE DIVING INTO SOMETHING NEW AT SKIN DIVER.

The issue you are holding is a brand new *Skin Diver*! Now ... you'll find more color! More pages! Larger in-depth travel guides to your favorite dive spots around the world, more how-to's on underwater photography along with *Skin Diver* reports on the newest diving gear, safety procedures, diving techniques, conservation, news on shows and seminars, the *Skin Diver* Diver's Directory and more to keep readers up-to-date on the under water world.

Skin Diver has expanded its scope to include international coverage as well as worldwide readership! Remember ... *Skin Diver* is the only monthly diving magazine in the United States. *Skin Diver* is the largest diving publication in circulation. And, *Skin Diver* is the most authoritative diving publication in the world!

If you're not a subscriber now—don't wait! You won't want to miss a single issue of this new **SKIN DIVER!**

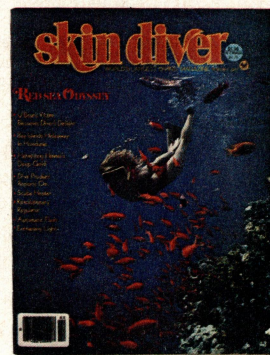


skin diver

6725 Sunset Blvd., P.O. Box 3295,
Los Angeles, CA 90028

Please ☐ enter or ☐ extend my subscription
to *SKIN DIVER* for 1 year for only \$10.95*
(a \$7.05 savings off the combined newsstand
cost of \$18 for 12 issues)!

☐ My \$10.95* payment is enclosed.
☐ Bill me (U.S. only).



SDH59

Name _____

Address _____

City _____

State _____ ZIP _____

*U.S. Territories & Military only. Other countries add \$3 per year for postage. Offer expires July 31, 1979.
(Please allow us up to 60 days to get the first copy of a new order into the mail. Watch for it!)

NASDS LOBBIES WASHINGTON

The NASDS legislative office in Washington, D.C. recently completed a major project which will affect dive store owners across the country who have encountered problems of competition with military dive instructors. Acting on a written complaint from the owner of a NASDS Scuba School in California, the NASDS legislative office contacted U.S. Navy officials who, in turn, promptly issued a cease and desist order. The base special services officer then directed the military personnel who were teaching scuba on their own time in competition with the civilian sector to cease these activities immediately.

The successful resolution of this problem holds great promise for similar action to be taken at all other military establishments throughout the United States and its possessions.

The procedure for engaging the services of the NASDS legislative office is quite simple. Write directly to NASDS Legislative Office, 1825 K Street, Suite 707, Washington, D.C. 20006, attention Kenneth A. Cotton. State clearly and concisely the nature of your problem.

SHERWOOD SELPAC NAMES SKRETRY CONTROLLER

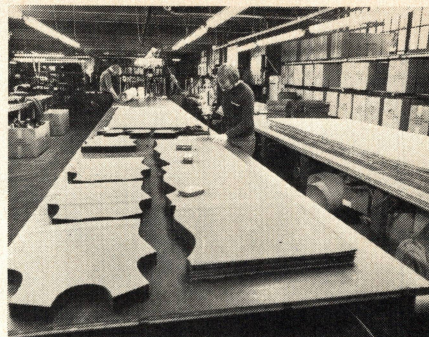
The appointment of Alfred E. Skretny as controller for the Sherwood Selpac Corporation, Lockport, New York, has been announced by L. Orin Lindquist, president. In his new capacity, Skretny will be responsible for the determination and maintenance of all cost control functions of the company's operations.

Skretny came to Sherwood Selpac, a Hill Acme Company, in late 1978 from the Carborundum Company, Niagara Falls, New York, where he was accounting manager of the insulation division for five years. Prior to that he was a divisional accountant for the Hercules Products Division of the Richardson Company.

HENDERSON AQUATICS

Henderson Aquatics, a leading manufacturer of wetsuits, announces a major expansion of its Millville, New Jersey, manufacturing facility. Floor space has been expanded 60 percent to provide a larger manufacturing area and finished goods inventory.

Allen Edmund, president of Henderson Aquatics, commented, "We pride ourselves in giving the best delivery in the industry and this current expansion will assure a continuation of this practice



while keeping pace with the growth of our business."

For further information about Henderson Aquatics and its products, including wetsuits, dry suits, survival gear and accessories, write to: Henderson Aquatics, Inc., Buck & Sassafras Sts., Millville, New Jersey 08332.

What's an AquaScooter®



If you're a swimmer, AquaScooter has the power to pull or push you along the surface at more than 4 mph for up to three fun-filled hours without refueling.

If you're a diver, AquaScooter can power you effortlessly from Point A to B, and let you snorkel for hours with ease.

An optional boat bracket turns AquaScooter into a peppy powerplant for lightweight watercraft of all kinds.

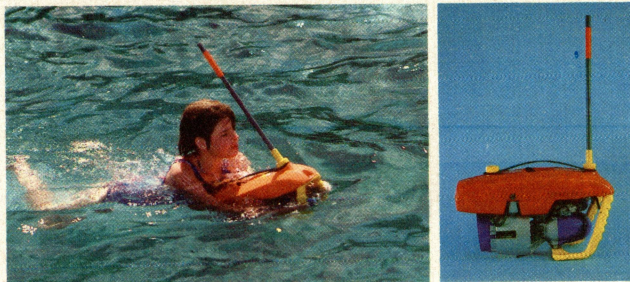
With its rugged and reliable 2-hp gasoline engine, and weighing in at less than 15 pounds, AquaScooter is fun, practical and easy to use. Let it go, it circles. Shut it off, it floats.

For more information and the name of your nearest dealer, write: AquaScooter, c/o Steyr Daimler Puch of America, Inc., 80 Field Point Rd., Greenwich, CT 06830.

AquaScooter. Portable power for swimmers, divers and boaters of all ages.

aqua
SCOOTER®

Protected by international patents.





Sub-Aqua Specialties

2236 BEMIS ROAD • VALDOSTA, GEORGIA 31601 • (912) 242-1152

Call
1-800
or **1-800**

MAY SPECIALS!

Buying somewhere else can be costly.

Call us First! We always try to be your best value.

Everything added together, you'll be dollars ahead by buying at Sub Aqua.

U.S. Divers Rocket Fins **\$ 16⁹⁵**

80 cu. ft. Tank w/K Valve **\$109⁹⁵**

w/J Valve **\$119⁹⁵**

Oceanic Sealight **\$ 54⁹⁵**

Farallon Prismatic Mask **\$ 29⁹⁵**

Stabilizing Jacket
with Auto Inflator & Pack **\$159⁹⁵**

without Pack **\$139⁹⁵**

U.S. Divers Conshelf XIV
Regulator **\$ 89⁹⁵**

WE HAVE
TANK PACKAGES as low as **\$189⁹⁵**

COMPLETE WITH 80 CU. FT. ALUMINUM TANK AND K
VALVE, KAM BACKPACK AND TOP QUALITY PISTON
REGULATOR

GAUGE SPECIALS from FARALLON

Pressure Gauge **\$39⁹⁵**

Pressure/Depth Combo **\$69⁹⁵**
(Back to Back)

Pressure/Depth Combo **\$74⁹⁵**

Pressure/Depth Compass Combo ... **\$99⁹⁵**

Sub-Aqua Specialties is a
PADI 5 Star Training Facility

We Have It All!

A DIVISION OF BUESCHER ENTERPRISES, INC.

Underwater life support systems are potentially dangerous to a non-trained user. Phone or mail order purchases of Scuba Tanks, Regulators or Buoyancy Compensators must include instructor's name & Number or a copy of your certification. This ad does not constitute an offer to sell these items via mail order.

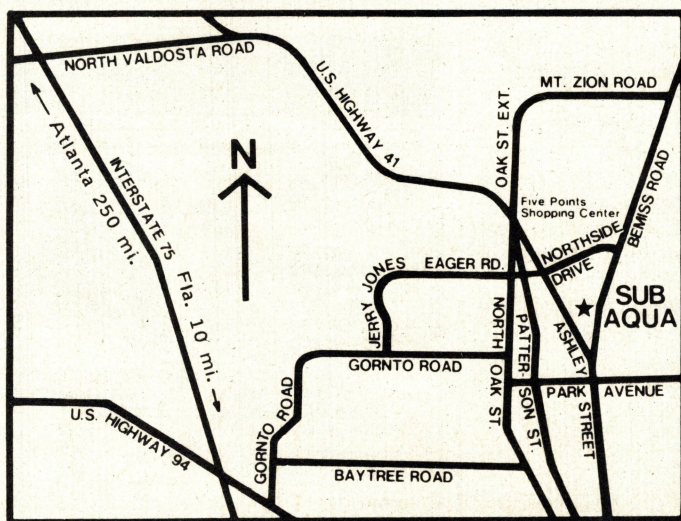
in your order TOLL FREE 841-4443 U.S.A 342-7156 in Ga.

That's the only thing you need to know before buying scuba equipment. We can save you a lot of money and ship your equipment to you in a flash. We even pay the shipping on all orders within the Continental United States (orders less than \$25 subject to a \$1.50 service charge). So go ahead, pick up your phone. Your call will be handled by divers just like yourself, ready to help and make suggestions. And if you phone right now we'll send you a FREE catalogue, price list and sales flyer!

NO BLEMISHES NO SECONDS....

We Sell **ONLY** First
Quality Merchandise!

- Fast, Free Shipping •
- Charge It To Your Master-
charge, Visa Card or
American Express • Call
Monday through Saturday
from 9 AM 'til 7 PM Eastern
Standard Time



**CALL TODAY! Receive a
free catalog, price list, and
complete monthly sales
flyer.**

Be sure to stop at Sub-Aqua Specialties on your next trip to Florida. If you're traveling south on 1-75 take the North Valdosta Road exit in Valdosta. Turn left at the 3rd traffic light onto Northside Dr. Travel Northside Dr. to Bemis Rd. and take a right, then go approximately $\frac{3}{4}$ mile and look for our sign on the right.

Binders



Save and protect all your valuable issues of SKIN DIVER Magazine in this permanent volume.

These durable binders are made of simulated leather with gold embossed title on the cover and spine, and make an attractive addition to your library.

Time to get rid of that unmanageable stack of loose magazines in your living room or study. Each binder securely holds 12 issues of SKIN DIVER Magazine, neatly organized at your fingertips for ready reference. Durable, attractive, and economical—order several for your collection.

Only \$7.00 each
3 for \$17.50 or 6 for \$30.25
Save 10-20%

Prices effective through December 31, 1979
 (Prices include shipping and handling.)

Petersen Library Binders

6725 Sunset Blvd. Los Angeles, CA 90028

Send me _____ SKIN DIVER Binders at \$7.00 ea, 3 for \$17.50 or 6 for \$30.25 (Postage and handling charges included. Calif. residents add 6% sales tax). My check or money order for \$ _____ is enclosed. To avoid delay—Print Clearly

Name _____
 Street _____
 City _____
 State _____ Zip _____

Allow 4-6 weeks for delivery

SD-579

92 SKIN DIVER MAY 1979

RANN, INC. TO DISTRIBUTE MARES AND SEAQUEST

Rann, Inc. of Honolulu, Hawaii, has been appointed the exclusive distributor of Mares and SeaQuest lines of dive equipment.

Headed by Robbie Robertson, Rann, Inc. is a long-term distributor of sporting equipment in the islands. Robertson has been personally involved in the sporting goods industry in Hawaii since 1959 and directly with diving for the past six years.

The SeaQuest line of buoyancy compensators and Mares masks, fins, snorkels and pneumatic spearguns will give Hawaiian divers the choice of some of the finest products available today.

For further information, contact Rann, Inc., 2835 Ualena Street, Honolulu, Hawaii 96819.

AQUA-CRAFT DISTRIBUTES NIKONOS

John D. Clouse, national sales manager of Nikon Incorporated, recently visited San Diego to congratulate Bill Martin, president of Aqua-Craft, Inc., on being appointed sole distributor of Nikonos underwater cameras, lenses, and accessories for dive shops in the U.S.

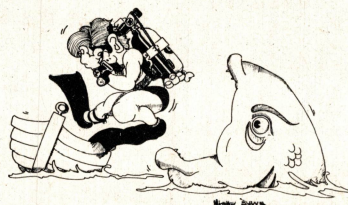
Clouse stated that Nikon had selected Aqua-Craft as its Nikonos distributor because of Aqua-Craft's wide coverage of retail dive shops and its excellent reputation for service.

Dealers interested in further information may contact Bill Martin or Emerson Mulford, Aqua-Craft sales manager, at: Aqua-Craft, 3280 Kurtz Street, San Diego, California 92110.

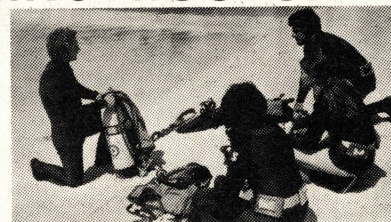
SHOUROT HOSTS DIVE SHOP PARTY

Robert J. Shourot, president of The Dive Shop, Inc., located in Bay Shore, New York, will kick off the 1979 dive season with a wine and cheese party to be held on May 12th, 1979 on the store premises. The Dive Shop manager, Ginny Dix, said the festive day will also include a free drawing for dive equipment plus one free scuba tank VIP per person. The party and VIP's will start at 2:30 am and run until 6:30 pm.

For further information, contact The Dive Shop, 110 W. Main St., Bay Shore, NY 11706.



LEARN TO BE A PROFESSIONAL DIVING INSTRUCTOR



In as little as seven days, you can learn to become a nationally recognized Diving Instructor in the warm waters of the beautiful Florida Keys. This is not a seven day testing session, but a comprehensive training program by the

PROFESSIONAL DIVING INSTRUCTORS COLLEGE

Write or Call for information:

HALL'S DIVING COLLEGE

1688 Overseas Hwy. (305) 743-5929
 Marathon, FL Keys 33050 743-5521

N.S.T.C.—P.D.I.C.—P.A.D.I.—STATE



PRESCRIPTION FACE PLATES

FOR DIVERS WHO WEAR EYE GLASSES

My custom-made, hydro-optically ground, prescription face plate is the original and only method of correcting your vision underwater exactly as your eyeglasses do on land without underwater distortion, lens fogging or breakage problems. Precision ground safety lenses permanently bonded to the face plate of any mask with a proven optical epoxy made for underwater use. Personally made by an optician who is a diver. Used and approved by divers in all 50 states, over 40 foreign countries. U.S. Navy, U.S. Army Engineers, and Smithsonian Institute. Send your own mask or face plate with your lens prescription and distance between eyes. Only \$42.50, including return postage, for my exclusive, super extra large, wide angle lenses. New masks also supplied. Or send for free literature. Unconditionally guaranteed. My twentieth year.

LEONARD MAGGIORE

Optician for Divers

69-03 Fresh Pond Road

212 EV 6-5339

Ridgewood, Queens, NY 11227

NEW THIN FLEXIBLE HAND SWIM-FINS

SO FLEXIBLE YOU CAN STILL USE YOUR HANDS & FINGERS NOW BEING USED ALL OVER THE WORLD BY - DIVERS • SURFERS • SWIMMERS • SNORKELING

THE MOST UNIQUE AND ADVANCED WATER SPORTS PRODUCT ON THE MARKET. SEND US A TRACING OR A XEROX COPY OF YOUR HAND • SPREAD FOR SIZE.

STANDARD SIZES \$15.95 (SMALL-MED-LARGE) CUSTOM MADE \$19.95 (HAND FITTED TO YOUR PATTERN)

DEALERS WANTED • BROCHURE OCEAN MOTION RESEARCH 1370 VINE DEPT. 3D MARTINEZ, CALIF. 94553



Honest Archie says:

"I shoot to kill when it comes to getting you the lowest price!"



For 27 years, I've been shooting down prices to give my customers the best deals in town.

I buy big, and I sell big.

So the top equipment manufacturers know I come loaded for bear when I hunt for the lowest prices on the best products.

Nobody buys or stocks like I do.

All high-calibre diving gear. All warranted by leading manufacturers, and quality assured by me.

That means whatever you order, it's ready for immediate shipment—without substitutions—at my

famous low, low prices.

Rush me your order. I'll shoot it to you fast.

Send or bring to Central Skindivers

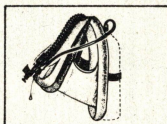
2608B Merrick Road
Bellmore, New York 11710



☐ A great **DACOR SCUBA DEAL**. All three superb items for only **\$299**. We can ship the 80 cu. ft. tank for **\$12**.

Our discount price if purchased separately:

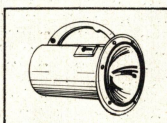
- ☐ Dacor 900 regulator with new positive air control. 2 h.p. & 3 l.p. ports. **\$129**
- ☐ Dacor 80 cu.ft. aluminum tank with "J" reserve valve. **\$139** plus **\$12** shipping.
- ☐ Dacor cam bac-pac for any tank. **\$39**.



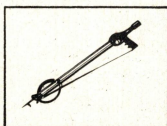
☐ **STABILIZING B.C.** Surrounds you with buoyancy. CO₂, oral & low pressure scuba inflation. Best kam-action bac-pac. **\$160**.



☐ **FARALLON COMBO GAUGE**. 150ft or 250ft depth gauge and 4,000 psi tank pressure gauge. Fine precision instruments. **\$79**.



☐ **POWERFUL LIGHT**. Good to 400ft. Rugged metal housing. 10 batteries (not included). Failsafe magnetic switch. **\$42**.



☐ **COMPETITION GUN**. 36" overall. 2 slings, stainless steel shaft and parts, positive safety, automatic shock-line release. **\$41**.



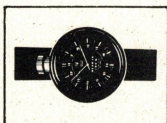
☐ **SEIKO WATCH**. 17-jewel, self winding, auto date, amazing quality. Tested to 492 ft. One year guarantee. **\$132**.



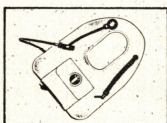
☐ **NYLON TWO SIDES 1/4" SUIT**. 5 zippers, stitched seams **\$109**.
☐ **NYLON TWO SIDES 1/4" FARMER SUIT**. Double warmth. **\$129**.



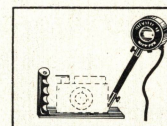
☐ **DACOR BLUNT TIP COMBO KNIFE**. 2 saw-tooth areas on super-sharp smooth blade. Stainless. Rubber sheath. **\$29**



☐ **BOTTOM TIMER**. Times dive precisely up to 60 minutes. Starts and stops automatically by water pressure. An important aid. **\$42**.



☐ **U.S.D. BC III**. New, 1979 Cordura B.C. Lever dump. 38gm CO₂. Low pressure scuba inflator. Whistle. In 52 or 38lb lift. **\$100**.



☐ **STROBE OUTFIT** for Nikonos II or III. Strobe, arm, handle, tray, quick-trigger. Wide angle. Fast recycle. To 250 ft. Foam lined carry case. **\$240**.

CATALOG PLUS FREE PATCH & DECAL

☐ Get Honest Archie's 1979 catalog. Over 600 pieces of the finest equipment at special prices, plus free patch & decal. **\$1**.

ORDERING INSTRUCTIONS

Cut on dotted line or copy this page. Check off the items you want. Archie pays shipping & insurance unless otherwise noted. Specify BC lift; height, weight, waist, chest & hip dimensions for suits; 150ft. or 250ft. for gauge; Nikonos I or II for strobe. Enclose check, money order, or charge information.

Amount enclosed _____
N.Y. Residents add sales tax. Minimum charge order \$50.

Name _____

Address _____ Apt _____

City _____ State _____ Zip _____

Telephone() _____

☐ American Express ☐ VISA
☐ Master Charge Exp. date _____

Number _____

Signature _____

Prices guaranteed until July 1, 1979.

Central is a PADI 5-star and I.T.C. facility. Lessons for beginner through instructor.

Central Skindivers

2608B Merrick Road, Bellmore, N.Y. 11710 • (516) 826-8888 • Open 7 days.
160-09 Jamaica Avenue, Jamaica, N.Y. 11432 • (212) 739-5772 • Open 6 days
Minutes from Manhattan and Kennedy Airport.

Because scuba tanks, regulators and buoyancy compensators are potentially dangerous to untrained users, this ad does not constitute an offer to sell these items to non-certified divers via mail order.

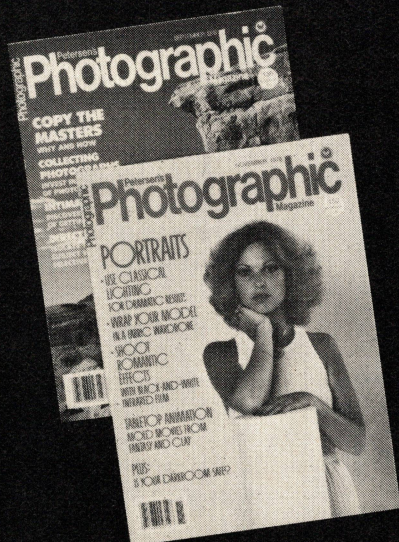
FOR RUSH ORDERS
CALL TOLL-FREE
800
645-4724

EXCEPT FROM N.Y., ALASKA
& HAWAII—(516) 826-8888

FOR OTHER
PRICE QUOTES
800
645-4724

EXCEPT FROM N.Y., ALASKA
& HAWAII—(516) 826-8888

ANOTHER ACTION TITLE FROM PETERSEN!



PETERSEN'S PHOTOGRAPHIC MAGAZINE!

Directed to all photographers interested in improving their proficiency with either still or movie cameras. Each issue contains features on equipment, lenses and film, "how-to" articles on special creative techniques and darkroom work, camera comparisons, readers' photos and a special portfolio section, and more!

Look for Petersen's **PHOTOGRAPHIC** magazine at your favorite newsstand or photo dealer every month!



PETERSEN PUBLISHING CO.

8490 Sunset Blvd.,
Los Angeles, CA 90069

THE MAN-OF-WAR

BY HARVEY J. BERMAN

Countless thousands of Portuguese Man-Of-War float onto beaches all over the nation every year. And, in recent years, the number washing ashore — and inflicting their paralyzing sting — has multiplied tremendously.

As a result, researchers are now in the midst of a crash program to develop a serum or medication capable of mitigating the worst effects of a Man-Of-War attack. Focal point of the effort is the University of South Florida in Tampa. Operating under a special National Oceanic and Atmospheric Administration Sea Grant project, scientists believe they're close to an important breakthrough, not only with regard to a Man-Of-War's sting, but its less painful — yet serious — bite.

Researchers have a wealth of data at their disposal. In recent years, the Man-Of-War has been studied and its characteristics analyzed and catalogued.

To begin with, the Portuguese Man-Of-War is not a single organism. It's an unbelievably complex colony of three organisms, all living and functioning together to survive. One part comprises the float that propels the creature through the sea. Closely linked, yet completely separate, a second serves as the creature's tentacles and stinging cells. Another is responsible for the Man-Of-War's digestion and reproduction.

A relative of the less dangerous jellyfish, the Man-Of-War's appearance belies its ferocity. Wafted onto the beach by offshore winds, it's easily mistaken for a pink, half-inflated balloon.

As its stunned victim is quick to find out, it definitely isn't.

Dangling from 3 to 30 feet below the creature are its thin, spiny, often lethal tentacles. These are pitted with nematocysts — tiny cartridges containing tightly-coiled, spring-like barbed threads, attached to a trigger hair on the Man-Of-War's skin. On the attack, the threads — like dozens of super-honed hypodermic needles — prick the victim. And as they break the skin, they fire a powerful neurotoxin. So dangerous is the venom that it has 75% of the potency of the cobra's, one of the world's deadliest snakes.

In laboratory tests, minute quantities of the venom have paralyzed and killed guinea pigs. And researchers maintain that just a thimbleful of the toxin could kill several hundred mice in just 30 seconds. Luckily, the Man-Of-War injects only a small amount of poison, at least in relation to total human body volume. A little more and its sting would more often be fatal. Its toxin is devastating enough to make a victim seriously ill and send him to the hospital.

How a person will react to the Portu-



SAMANTHA \$29.95

including postage

GROUP RATES AVAILABLE

Discount 10% from all orders paid in U.S. funds. Send \$1.50 for a copy of Canada's largest and most informative sport diving catalogue (142 pages), refundable with first purchase.

SUPREME DIVERS LTD.

170 King Street East
Toronto, Ontario M5C 1B1
(416) 364-2341

Telex 06-23250 SUPREME TOR

*Hey Mister, want to see a
Nudie Cutie?*



then don't
miss June

skin diver

**Mike Kevorkian's SPEARGUN
SPECIALISTS**
(est. 1956)

Featuring:

- S.M.G.
- Arbalette-Canon
- Swimaster-Voit
- Mfrs. of speargun rubbers
- Air and CO₂ spearguns
- Speargun accessories-repairs

Write for catalog \$1.00 (foreign \$2.00)

TARPOON SKIN DIVING CENTER
3200 Palm Ave., Hialeah, Florida 33012
(305) 887-8726

Action Ready



in sand, dust, snow and underwater



Flexible Camera Housing



underwater...



at the beach...

The "Space Suit" for your camera!

Run, climb, walk, swim, float, fly, or dive into the most extraordinary situations with an EWA protective camera housing. Recognized by seasoned photographers for its unexcelled flexibility. **Sizes:** All standard SLR: "F" \$54.95; + small strobe, small winder: "FX"; \$59.95. Larger SLR, + strobe or lenses to 100mm: "FPN"; \$69.95. Prices are suggested list prices and may vary, (17 other types available). **For Still and Movie Cameras.** See your photo dealer or write:

PIONEER & COMPANY

900 Haddon Ave., Collingswood, NJ 08108 (609) 854-2424

MOVING?

DON'T MISS A SINGLE ISSUE OF SKIN DIVER!

Let us know your new address right away. Attach an old mailing label in the space provided and print your new address where indicated.

QUESTION ABOUT YOUR SUBSCRIPTION?

When you write, be sure to include a label. It helps us serve you more promptly.

TO SUBSCRIBE OR EXTEND YOUR SUBSCRIPTION—

Check the appropriate boxes below:

- ☐ New subscription. Please allow us up to 60 days to get the first copy into the mail.
- ☐ Renewal subscription. Please include a current address label to insure prompt and proper extension.

- ☐ 1 year \$10.95 or ☐ 2 years \$19. (U.S. Territories & Military only. Other countries add \$3 per year.)
- ☐ Payment enclosed or ☐ Bill me (U.S. only)

MAIL TO:

SKIN DIVER
6725 Sunset Blvd.
Box 3295
Los Angeles, CA 90028

Name

Address

City

State

Zip

ATTACH
LABEL
HERE

(If label is not handy, print OLD address in this space.)

gese Man-Of-War's sting — which often feels like a sharp electric shock or red-hot wire brushed across the skin, depends on his threshold. More sensitive persons are in deep trouble. Moments after being stung, their blood pressure will plummet, their breathing become labored and their pulse surge. Wave on wave of nausea, accompanied by cramps and a severe headache, come next. Some victims go into shock and suffer a heart seizure. In these instances, the doctor may prescribe Epinephrine to restore the heart action and even morphine to alleviate the incredibly intense pain.

Target of the University of South Florida's research project, however, is an immunization program against Portuguese Man-Of-War stings. The same program could be applied to jellyfish attacks. Researchers are currently evaluating the possibility of developing a potent serum using venom extracted from the Man-Of-War and then detoxified. Those injected with the serum could then build up antibodies to the poison and become virtually immune to the creature.

The program is also focusing on another possible serum — considerably stronger — which could be administered immediately to anyone stung by a Man-Of-War. While the victim would still suffer considerable discomfort, the serum would at least alleviate the sting's most severe effects.

One problem scientists must first overcome is to concoct a serum that is so foolproof and easy to inject that, in an emergency, even a layman — a life-guard, perhaps — could use it swiftly and with 100 percent success.

Still another concept research teams are exploring is a compound or ointment which could be rubbed on the fierce skin welts left by a Man-Of-War sting. The compound, it's hoped, could be sold over-the-counter by drug-stores, "sun and surf" shops and sport equipment dealers.

Actually, the balm scientists have in mind is a refinement of the only remedy now known for a Man-Of-War bite.

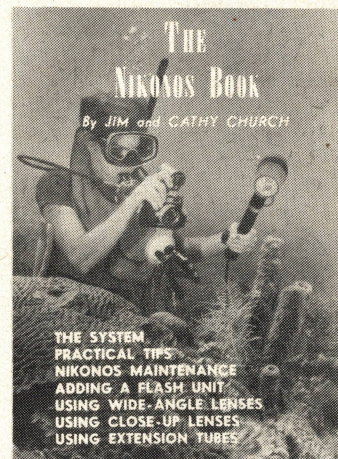
South Sea islanders have long employed papaya to treat victims. The fruit is promptly applied to the sting, moistened and rubbed into the wound, so that it will interact with the venom. It's then rinsed away.

If not the perfect answer to a Man-Of-War attack, papaya at least offers a partial one. That's why many physicians at resorts around the nation treat their patients with meat tenderizers offering a high papaya content.

Until researchers come up with their long-awaited serum and ointment and a more scientific approach to Man-Of-War stings, papaya will have to do. But thanks to University of South Florida marine biologists, and encouraging early results, help may be on the way.

A great new book

THE NIKONOS BOOK by Jim and Cathy Church



96 page **MANUAL** of tips and techniques, by the people who REALLY know! Minimal overlap with owner's manuals or our previous books. Indispensable for the Nikonos user. **\$4.95**

Also available:

BEGINNING U/W PHOTOGRAPHY, \$3.95
Concise introduction—a favorite of busy people who want to get right to the answers. 56 pgs.

U/W STROBE PHOTOGRAPHY, \$4.95
The most complete guide to exposure and lighting. 64 pgs.

Both books are excellent companions to
THE NIKONOS BOOK

Jim and Cathy Church, (381 Sherwood Dr.)
P. O. Box 80 Gilroy, CA 95020

Please send me

- ☐ The Nikonos Book, \$4.95
- ☐ Underwater Strobe Photography, \$4.95
- ☐ Beginning U/W Photography, \$3.95

(Please add 50¢ for postage. Cal. res. add 6% sales tax. Allow 3 wks. for delivery.)

I enclose \$ _____ ☐ Check ☐ MO

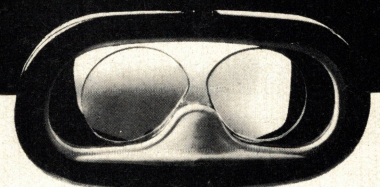
Name _____

Street _____

City _____

State _____ Zip _____

AIR AMERICAN® SCUBA Rx LENSES



for better underwater vision

Prescription lenses permanently bonded to your mask. Available through your doctor, scuba supplier or

BENSON OPTICAL CO., INC., Sports Div.
1812 Park Ave., Minneapolis, MN 55440 • 612-332-4511
Dealer inquiries welcomed.

MIAMI

Diver's Paradise



- SALES
- AIR
- HOOKAH
- HIGH PRESSURE
- COMPRESSORS

Please Rush Me 1979 Catalog

- ☐ U.S. AQUANAUTS \$2.00
- ☐ U.S. DIVERS \$2.00

NAME _____

ADDRESS _____

STATE _____ ZIP _____

U.S. AQUANAUTS

A DIVISION OF SCORPIO
ENTERPRISES CO., INC.
677 S.W. FIRST STREET
MIAMI, FLA. 33130

Open weekdays and Saturday 9 am to 7 pm

Friday 9 am to 9 pm

Phone (305) 545-9000 or 545-7827

HARDY'S NEW BOOK

A new publication by Jon Hardy, U/W consultant and former NAUI executive director, is now available. Entitled *The Business of Sport Diving*, the book is an authoritative guide filled with practical information crucial to the successful operation of a dive business. Written primarily for dive stores, independent instructors and charter boat operators, the book also deals with the concerns of resort operators, travel agencies and schools.

Hardy's book is based on the concept of achieving customer satisfaction at a profit. Chapters cover such topics as: financial management, legal aspects, inventory planning, personnel selection, store layout, advertising, tax savings and insurance requirements.

The Business of Sport Diving is packed with facts, figures and concepts never before applied systematically to the dive business. A comprehensive marketing analysis and customer profile are included along with a section detailing what population base and characteristics are needed for a profitable operation.

The 124 page book, priced at \$15, is available from NAUI Headquarters, P.O. Box 630, Colton, CA 92324. 

NATIONAL SCUBA REPAIR

DIVING EQUIPMENT REPAIR IS OUR ONLY BUSINESS

3 DAY SERVICE

Regulators \$10.00 (1-hose) \$12.00 (2-hose)

Valves \$ 4.50 (K) \$ 7.00 (J)

All Prices Are Plus Parts

SEND YOUR EQUIPMENT NOW

OR WRITE FOR COMPLETE PRICE SHEET

DEALER INQUIRIES INVITED

16442-B Gothard St., Huntington Beach, Ca. 92647

HYDROCOPTER III

Build the improved Hydro III wet sub. With automatic depth compensation. And powered directional system. Complete plans \$15.95. Certification No. USLA, P.O. Box 317, Port Royal, S.C. 29935.



ATTENTION: SALTWATER AQUARIUM HOBBYISTS—

Undersea Safari Equipment, by John C. Noyes, Fish Collector, announces REEFNET™ KITS (special barrier nets) at \$27.95 (incl. UPS within continental U.S.) for AQUARISTS/ DIVERS to catch their own valuable reef fishes.

Call or write:

P.O. Box 212, Ft. Lauderdale, FL 33302 (305) 462-3788

GINNIE SPRINGS

Unique Florida freshwater dive resort tempts divers with six crystal clear springs set amid 400 acres of pristine beauty. Get all the details in the June

skin diver

on sale May 31

EXCLUSIVE UNDERWATER VISION

Offers more enjoyable diving for eye-glass wearers.

We permanently bond ground

lenses to your own face mask with an optically clear modified epoxy specially tested to withstand temperature and pressure extremes.

The 71mm blanks we begin with are custom-contoured to each mask on the market before grinding to give excellent vision from both lateral and horizontal edges of mask. They are guaranteed to give you the same vision under water as you get on land with your eyeglasses. (Actually better, since all objects are brought closer).

These uniquely bonded lenses can be yours for only \$43.00. Bifocals add \$14. Uncond. guar. Returned by Insured Parcel Post. Add \$2.00 for postage. Include Postage if order is outside continental U.S. Illustrated literature available on request. Send your lens prescription, distance between eyes, vertex distance and face plate only to:

UNDERWATER VISION INC.



Venice Eye Clinic Bldg.
952 Cooper Street
Venice, FL 33595/(813) 488-3583

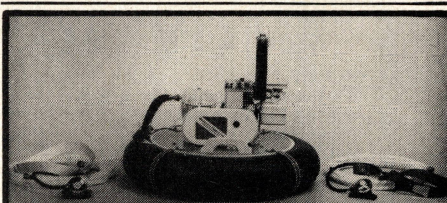
SAN SALVADOR U/W PHOTO CENTER

Dave Woodward, resident U/W photo pro at Riding Rock Inn, San Salvador, Bahamas, has announced the opening of full services at the Underwater Photo Center. This spacious, air-conditioned facility is located right at the marina, adjacent to the dive shop, and just a few steps from the hotel. The facility consists of a large classroom, workbenches for the photo students, and a darkroom lab.

The Underwater Photo Center will be offering color film processing (Kodak E-6 film) on a daily basis so that visitors can view their pictures while still on the island. The center also has a wide selection of cameras and strobes for rent.

Introductory one-day photo classes, and beginner two-day photo classes, are conducted every week for divers who are interested in learning about underwater photography. Photo classes and color film processing are personally conducted by Dave Woodward, a world renowned underwater photographer with more than 20 years of experience.

For more information or free brochures, contact Riding Rock Inn's state-side representatives: Columbus Landings Service Company, Inc., Travel Department, P.O. Box #1492, Fort Lauderdale, Florida 33302, (305) 566-7441 in Florida 1-800-327-9473 toll-free. 



HOOKAH DIVERS DIVE WITH BROWNIE'S THIRD LUNG

Price \$425.00 — Including 2 Regulators, 2 hoses and 2 harnesses. Four other models available. For brochures send self-addressed stamped envelope to:

W. C. BROWN COMPANY

2370 SE 11th St., Pompano Bch., Fla. 33062
Ph. 305/942-3205

YES I WANT THE WHOLE STORY ABOUT COMMERCIAL DIVING

Commercial Diving Institute

151-19 6th RD. WHITESTONE, N.Y. 11357

Please send me complete FREE information package on careers in commercial diving. (or call (212) 767-7800)

NAME _____

STREET _____

CITY _____

STATE _____

ZIP _____

DIVING EQUIPMENT ENGINEER

Commercial and Military diving equipment manufacturer has immediate requirement for mechanical engineer with particular experience in diver breathing apparatus design and production. Person selected will join R. and D. department on long range products development. Must be able to take products from concept to production, including QA.

DIVER'S EXCHANGE, INC.

P.O. Box 504

Harvey, LA 70059

Telephone (504) 368-2986

HOW TO PACK YOUR PHOTO GEAR FOR A DIVE VACATION

BY GERI MURPHY

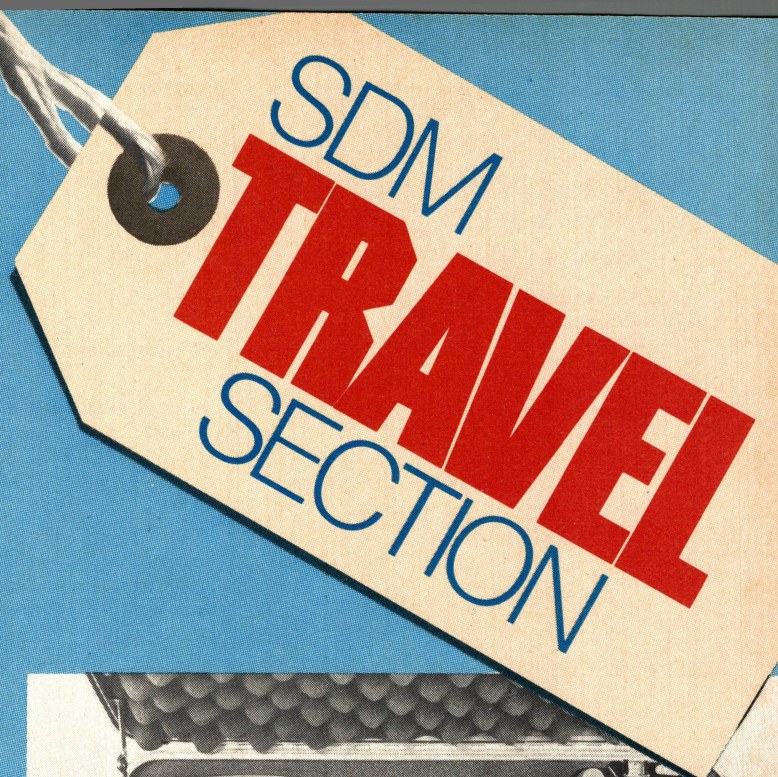
Traveling to exciting new dive destinations to pursue your favorite hobby of underwater photography can be fun and oftentimes very rewarding. Having to transport all of the equipment in one piece to your chosen underwater playground is another matter. If photography is the primary purpose of your week's vacation on some faraway island, and you've scrimped and saved all year to pay for it, then you can't afford not to read on. For if you fail to pack properly, you may arrive only to find your photo gear in pieces, and your trip would be in vain.

The suggestions outlined below will help you arrive at your destination with everything intact.

SELECTING A CAMERA CASE — The amount of camera equipment you own will dictate the number of camera cases you will need. Because camera equipment is fragile and expensive, it is wise to carry as much as possible with you in the passenger section of the airplane. Should a piece of luggage be lost in the baggage compartment, the airlines will only insure it for a maximum of \$750. But, even if you have additional insurance to cover the loss, there is little you can do to replace it upon arrival at the resort.

You need a case that is lightweight, rugged, and large enough to carry a reasonable amount of gear. The case must also be small enough to fit under the passenger seat, as required by the airlines. The one case which fulfills all of these requirements is Zero Halliburton's camera case Model No. 105. Measuring 21 x 13 x 6½ inches, the case is made of strong aluminum and weighs about five pounds. Used by most professional photographers, the Halliburton case comes in many sizes, but the Model 105 is the best size for use as a carry-on piece of luggage. It is foam lined and features a combination security lock which you can set yourself. Well worth its cost, this camera case will last a lifetime.

Even though your hand luggage contains your most valuable equipment, it is unlikely you will be able to fit everything into this one case. A larger case, which will be checked through baggage, is needed for fragile, bulky equipment such as strobes, chargers, extra lenses and accessories. An excellent case for this purpose is Oceanic's Environmental Case which is made of fiberglass and O-ring sealed. Available in two sizes (17½ x 13 x 9 inches and 17½ x 13 x 14 inches), these cases are extremely lightweight and are virtually crush-proof. They will adequately protect the most delicate photo gear despite rough treatment by luggage handlers. After your arrival, the watertight case can also be used to carry various items to the marina and to keep film, topside cameras, towels, etc. dry from saltwater spray and rain on a boat.



The Zero Halliburton photo case fits under your airplane seat and holds as many as three cameras, seven lenses, plus accessories.

PACK IT IN FOAM — Regardless of what camera case you use, all of the gear should be cushioned with foam. Most cases come with foam already installed and ready for cutting. Additional foam can be purchased, but note that there are many different types. The foam used in a camera case is quite different from that used by manufacturers of seat cushions. The proper foam to use is sometimes called "photographic foam" or "charcoal gray foam." Unlike the soft, spongy yellow or white foam, photographic foam is more rigid and provides much more protection against vibration and shock. The foam should be about one-quarter inch larger than the case so that when inserted, it is firm and snug with no slack along the edges.

To determine what will fit into the case, first place the camera and accessories on the foam, moving the items around until each object has about ½ to ¾ inch between it and the rest. The heaviest objects should be at the rear or along the edge of the hinge. Leave about ¾ inch of foam along all edges. Next, take a fine line magic marker and trace around each item, marking the foam. As a suggestion, the foam should be in layers no thicker than 2 inches. If the depth of the bottom half of the case were 5 inches, then you would have two layers 2 inches thick with the bottom layer 1 inch thick. It is easier to cut through 2 inches at a time than 5 inches, and the foam can then be cut to give different depths, according to

(Continued on Page 101)

ENJOY UNDERWATER PHOTOGRAPHY with JIM & CATHY CHURCH

at SPANISH BAY REEF RESORT, GRAND CAYMAN

Two pros to help you personally underwater.



8 five-day courses:

June 30-Sept. 8, 1979

• ... courses run by Jim and Cathy ... continue to receive high marks from students.

UNDERCURRENTS, V III, #12

• Your course must be THE most fun way to get a blast of serious U/W photo input. Outstanding!

Bob Whittlesey

• I learned more in that week than I had in the last five years.

Dick Portmann

• I cannot express how much I enjoyed myself. The slide show I did for my friends was a tremendous success.

Chris Mills

• Both of you were terrific. I had an absolute ball.

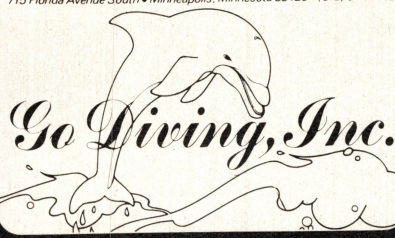
Maurice Levy

• I'll be back.

Stan Botwinik

For details, write: Jim & Cathy Church
P.O. Box 80, Gilroy, CA 95020
or phone: (408) 842-9682

715 Florida Avenue South • Minneapolis, Minnesota 55426 • (612) 544-7168



The best darn diving vacations you can find

are found at Go Diving, Inc. For smooth running tours, fun-filled destinations and reasonable prices to areas like:

COZUMEL
BELIZE

GUANAJA

ROATAN
HAWAII

CONTACT Go Diving, Inc. for further information and free brochures

We care.

It Might Be The Most Unusual Diving Tour Ever Offered.

Instead of diving in places you've always read about, imagine 10 full days of unlimited diving in places most people have never even heard about.

Let LA MER's native guides take you into the unexplored waters and reefs of the exciting Red Sea.

Ras Abu Galum, Ras Mamleck and the breathtaking Ras Mahammed!

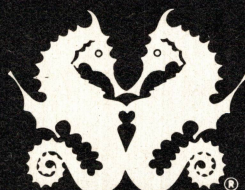
Our exclusive Red Sea Diving Seafaris include 4 star hotels, Seafari camping, desert tours and 12 day special Seafari boat trips. For more info and brochures call or write:

LAMER/REDSEA

Kopel/La Mer 40 E. 49th St. N.Y.C. 10017 (800) 223-7408

DIVE BELIZE

Live aboard the spectacular 85-foot "Belize SunDiver" and 75-foot "ISLA MIA." Dive Lighthouse Cay, Turneffe Reef, Blue Hole, fabulous night diving. Superb food and air conditioned cabins for 12 divers. Unlimited diving. Scheduled 7-day diving cruises every month. Exclusive group charters available.



**See
&
Sea**

680 BEACH ST./SUITE 340/WHARF SIDE
SAN FRANCISCO, CALIFORNIA 94109
TELEPHONE (415) 771 0077

TRAVEL
SERVICE,
INC.

Why Not The Best?

Dive Cozumel

Dive Cozumel and the spectacular Palancar Reef off the Yucatan coast of Mexico. Excellent resort hotel, comfortable diving boat with expert crew. Thousands of satisfied See & Sea divers since 1966.



**See
&
Sea**

680 BEACH ST./SUITE 340/WHARF SIDE
SAN FRANCISCO, CALIFORNIA 94109
TELEPHONE (415) 771 0077

TRAVEL
SERVICE,
INC.

Why Not The Best?

Philippines

Live aboard the magnificent 102 foot "Sea Quest." Exotic diving on remote and primitive offshore islands. Superb food, photographer's dream, the world's richest marine life. Scheduled 17 day cruises. Exclusive group charters available.



**See
&
Sea**

680 BEACH ST./SUITE 340/WHARF SIDE
SAN FRANCISCO, CALIFORNIA 94109
TELEPHONE (415) 771 0077

TRAVEL
SERVICE,
INC.

Why Not The Best?

CRUISE SOUTH • BY CAR
CORAL LAGOON
DIVING RESORT
KITCHENS-DOCKS-COLOR T.V.
TENNIS COURT-F.W. POOL

REEF TRIPS complete DIVE SHOP
Fast custom fiberglass 20 and 6 pass. boats
Individual or group rates. Also Cay Sal trips (6)

MARATHON 33050 FLORIDA KEYS
305-289-0121

BELIZE Central America
Virgin diving on a Caribbean coral atoll
10 DAYS
\$475
ALL INCL.
Shorter packages available for groups of 16 to 27

PRIVATE CABIN ON THE BEACH OVERLOOKING
THE REEF, ALL MEALS, TANK, AIR, BOATS, GUIDES, 8 full days of diving.

For literature write or call John Lidington, 14841 SW 298th Terrace, Homestead, Florida 33030 • (305) 245-1085 • or write AIR MAIL to Lomont Enterprises, Ltd., Box 563, Belize City, BELIZE, C.A. • phone 2548.

GRAND GAYMAN
RUM POINT CLUB
P.O. 510, Ph. 7-2535 • Small (10 Rooms) Intimate Dive Resort • Private Beach • Personal Attention • Small Dive Boat Groups (2-6) • 5 minutes to Cayman Wall • wrecks • caves • 3 Boats • All Equipment • Instruction • Scuba Packages April 16-Dec. 14

SCUBA CAMP
at Rum Point • The Summer Camp with a "Purpose"
• July/August: Coed 10-15 • Programs in Scuba, Marine Science, Kayaking, Survival

Write: Thelma Clark/Director,
200 Ansel Road, Geneva, Ohio 44041



The Naturalist approach
to diving vacations . . .

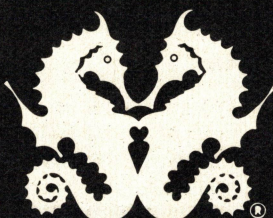
- The Red Sea
- Grand Cayman
- British Virgins
- Hawaii
- Bonaire
- Truk & Palau

Escorted & Individual Tours...

Sea Life Discovery
19915 Oakmont Drive
Los Gatos, CA 95030
(408) 353-1766

Still Settling for 2nd Best?

Maybe it's time you moved up to See & Sea. For twelve years we've offered the MOST diving, the BEST diving, and the LOWEST COST PER DIVE. Our programs are designed for the avid diver/photographer who insists upon maximizing his diving and photo opportunities. Join us in Cayman, Philippines, Virgin Islands, Galapagos, Belize, Red Sea, Cozumel, Australia, Fiji, Tahiti, Micronesia and Maldives/Sri Lanka.



680 BEACH ST./SUITE 340/WHARF SIDE
SAN FRANCISCO, CALIFORNIA 94109
TELEPHONE (415) 771 0077

**See
&
Sea**
TRAVEL
SERVICE,
INC.

Why Not The Best?

GRAND CAYMAN

• SUPER TRIP •

July 19/79 to July 25/79

- Air fare round-trip
- Lodging 6 nights & breakfast
- 6 tanks of diving
- All inclusive price from New York/Newark only \$495.00
- All inclusive price from Miami only \$385.00
- Prices from other cities upon request

THE SKIN DIVING CENTER

1659 Hwy. # 27, Edison, NJ 08817
(201) 985-2206

Virgin Islands

Live aboard the superb 87-foot "PELORUS JACK." Magnificent coral gardens, wreck of the "Rhone," spectacular night diving. Excellent food and comfortable quarters. Anchored always over your dive site. Unlimited diving. Scheduled 7 day diving cruises every month. Exclusive group charters available.



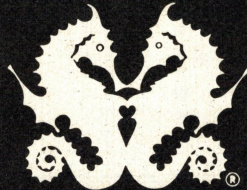
680 BEACH ST./SUITE 340/WHARF SIDE
SAN FRANCISCO, CALIFORNIA 94109
TELEPHONE (415) 771 0077

**See
&
Sea**
TRAVEL
SERVICE,
INC.

Why Not The Best?

Dive Cayman

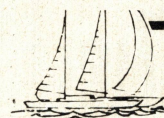
Live aboard the 85-foot "Cayman Diver," the best equipped diving cruiser in the Caribbean: air conditioned quarters, gourmet meals. Exotic diving on virgin reefs: photographer's paradise, night diving. Scheduled 7-day diving cruises every month. Exclusive group charters available.



680 BEACH ST./SUITE 340/WHARF SIDE
SAN FRANCISCO, CALIFORNIA 94109
TELEPHONE (415) 771 0077

**See
&
Sea**
TRAVEL
SERVICE,
INC.

Why Not The Best?



56' luxury
trimaran

MISTY LAW

Sail and dive cruises throughout the
BRITISH AND AMERICAN VIRGIN ISLANDS
13 DAYS, 12 NIGHTS—\$780 (only \$65 per night)

What you get:

- Berth in a 2 person cabin with private bathroom
- All equipment and air
- Professional instruction/guiding
- 3 good meals per day
- Free sodas, beer, liquor any time; wine with dinner
- Fast exciting sailing; beautiful night stops; deserted beaches; water skiing; wind surfing
- Better and more varied diving than you could possibly get land based
- Plenty of interest for non-divers too
- Tailored cruises to suit all standards
- Maximum capacity—8 guests
- Group tours of any length possible

TRIMARINE BOAT CO. LTD.
HOMEPOR, ST THOMAS, U.S.V.I. 00801
or phone Nevada (702) 588-3571
8 a.m. to 4 p.m. Pacific Time only



CONDOMINIUM RESORT

Operated in conjunction with Spanish Bay Reef Resort. Luxury living in one and two-bedroom apartments, with full privileges next door at the Caribbean's leading dive resort. Daily rates.

Write Air Mail To:
Nancy & Ron Sefton
Box 1200, Grand Cayman B.W.I.

DIVING STUDY TOURS TO MICRONESIA

STUDY MARINE
ANIMALS
WHILE HAVING
THE DIVES
OF YOUR
LIFE

- WRITE TO

ED-U-DIVE, Inc.

P. O. BOX 724, LIBBY, MT. 59923
(406) 293-7747

Hawaiian Divers in Kona

We Offer—
Kona's finest scuba trips
Hawaii's largest dive shop
Three custom dive boats
Instruction, rentals, repairs
HAWAIIAN DIVERS
Box 572, Kailua—Kona,
HI 96740
(808) 329-3407



Spyglass Hill

RESORT & CLUB
ROATAN, ISLA DE LA BAHIA
REPUBLIC OF HONDURAS, C.A.



WHY PAY EXTRA TO DIVE!

\$288.40 gets you 7 nights and 6 full days of diving on Roatan's famous barrier reef. \$288.40 per person dbl. occup. includes luxurious villa accommodations. 3 delicious meals daily and a fresh-water swimming pool.

Our 40-foot steel, twin-deisel dive boat is your magic carpet to underwater adventures you can only experience here. We have 50 tanks and the largest compressor in the Caribbeans. Explore blue-holes, tunnels, drop-offs and coral gardens. Gin-clear water, and the friendliest fish you've ever met. Fantastic? Incredible!

For information & reservations
wire or write to above address or

SPYGLASS HILL RESORT

c/o ROSEAU AFFILIATES
U.S.A. 630 N. Western
Address: Lake Forest, Illinois 60045
Telephone: (312) 234-2222

Gone Down Lately AT PENNEKAMP?

Dive aboard 48'
GOOD TIME CHARLIE
... We carry O₂ For your safety
... Open Water Checkouts

NIKONOS REPAIR CENTER

Write for Color Brochures

BILL CRAWFORD'S TROPIC ISLE DIVE SHOP

P.O. Box 755-B Key Largo, FL 33037
Mile 103.5 Tel. 305-451-1063

FREE PENNEKAMP-FLORIDA KEYS TRAVEL GUIDE

A complete information flyer on reef trips, island charters, accommodations, camping, restaurants, weather, and even directions from airport. We have on the premises cottages, full service marina, darkroom, and tiki bar. Dive with us and spend the night free. FREE LODGING in our divers dormitory. Even groups and clubs think how much you'll save. We have two 50 ft. super dive boats and a free airport to Key Largo shuttle bus for groups. Write today KEY LARGO DIVING HQ TR5, Rt. One, Box 293, Key Largo, FL 33037 or call us anytime on our 24 hour HOTLINE 305/451-1151.



Sail Aboard The Pride!

PROFESSIONAL DIVER

The Pride is a 90' Barquentine fully-equipped for your diving program. Send for information on how you, as Dive Master, and your group can charter The Pride and explore the exceptionally good diving in the Windward Islands.

Phone (305) 523-7090

THE PRIDE, P.O. Box 22069, Fort Lauderdale, FL 33335

GREATEST WALL INN WESTERN HEMISPHERE

Little Cayman Wall, Buccaneer Inn on Cayman Brac, 34 Carpeted, A/C Rooms, Calypso, Excellent Food. Complete Dive Facilities. 42 Ft., 40 Ft., & 27 Ft. Dive Boats. Very Reasonable Dive Packages with Unlimited Diving. 5 Flights Weekly from St. Petersburg/Clearwater.

Contact: RED CARPET AIRLINES

Post Office Box 685 • Land O' Lakes, FL 33359 • (813) 996-4944

Adventure Cruises

THE MOST IN REAL BAHAMA DIVING



FREE BROCHURE



P.O. Box 22284, Ft. Lauderdale, Fla. 33335



DIVE BELIZE

at Ambergris Caye
Relaxed Barefoot Atmosphere

INCREDIBLE LIVING BARRIER REEF

Excellent Packages
Blue Hole Trips
36' Dive Boat

Ambergris
Lodge

Hotel Representative:
800-223-5186 (NE)
800-223-5581
(nationwide)



FANTASTIC Florida Keys Diving

- Complete diving facilities
- Discount Air to guests—Package tours
- Rental Equipment—Boats
- Family units—Villas—Apt.—A/C-TV
- Pool—Lessons—YMCA—PADI Instr.
- Boat ramp—Dock—Basin

(305) 664-4955

Free Brochure—Box 575 S.D. Islamorada, Fla 33036

ANTHONY'S KEY RESORT

ROATAN HONDURAS

"A CARIBBEAN PARADISE"

- Unlimited diving
- No Serv. Charges
- Horseback riding
- Private bath
- Sailing
- All meals
- Tennis
- Group rates

DIVE & SEEK TOURS

Box 31696, SF, CA 94131 (415) 333-6426

FLORIDA KEYS and BAHAMAS LIVE ABOARD DIVE BOAT

Unlimited Diving Meals

Walls and Wrecks Air

SEA FEVER P.O. Box 1335

Key Largo, FL 33037



IKE IS COMING

DIVE ANTIGUA LONG BAY HOTEL

Beautiful resort surrounded by reefs, starting just off a great beach. All facilities for snorkeling, scuba, sailing, and deep sea fishing. Special divers' rates and group packages. 3 1/2 hour direct flights from N.Y.

WRITE: LONG BAY HOTEL
Box 442, Antigua, West Indies.



DAVE McLEOD'S SKIN DIVING ADVENTURES

Great Family Diving in Bermuda • Many Shallow Water Wrecks 30 Ft. • Lots of Fish and Coral • Something for Everyone • Novice to Pro • Diving Instruction & Underwater Cameras Available

The Gables Guest House • Harbour Road • Paget • Bermuda
Cables: "Gables, Bermuda"
Telephone: 809/29-16207

DIVE THE EXUMA CAYS THE BEST OF THE BAHAMAS

- 71' Diving Yacht
- Free Air
- Unlimited Diving
- Excellent Food
- Wall Dives
- Economical Price
- Night Dives
- Groups Only

R/V DRAGON LADY 800 S.E. 17th St.
Ft. Lauder., Fla. 33316

DIVE WHERE PIRATE GLOVER ONCE SAILED

Let us show you the treasures he missed. The FLAMINGO TONGUE is a fully equipped 45' dive boat that sleeps 8 divers. Belize has 3 of the world's most beautiful atolls. \$380 per wk. Free brochure and info of accommodations on S.W. Caye, Glovers Reef. \$280 per wk. Arthur R.C. Usher, Box 10, Dangriga, Belize. Ph. 05-2001 or call DelMar, Frank Parrish, Jr., 1007 9th St., Wichita Falls, TX 76301. Ph. 817/766-0246



Sail Aboard The Pride!

THE PRIDE'S TEENAGE CAMP

June 28-Aug. 9, 1979 Co-ed.

Live aboard Square-Rigged Schoolship. Visit Caribbean Windward Islands & South America. Sailing skills Navigation Seamanship Marine Biology. Beginning and Advanced Scuba Diving Certifications. Write for Application & Brochure.

Phone (305) 523-7090

THE PRIDE P.O. Box 22069 Fort Lauderdale, FL 33335

NORTH CAICOS IS NOW OPEN TO DIVERS

- * Truly Virgin Reefs
- * 34' Seadeck Dive Boat
- * Wall Diving
- * Modern Beach Front Hotel
- * All inclusive unlimited diving package

SEAQUATIC DIVERS

RD 4, Box 1044, Middletown, NY 10940 (914) 386-1270

DIVE THE BAHAMAS FOR THE FUN OF IT

- 75' Dive Ship—
- Air-conditioned cabins
- 3 meals Daily
- Free Air.
- Groups or Individuals
- Varieties of Diving

M/V IMPOSSIBLE DREAM

U.S.C.G. Approved S.O.L.A.S. Certified
P.O. Box 1262 • Melbourne, FL 32901



EXPEDITION to remote tropical islands.

6 or 14 days from \$320.

Write for free Adventure Booklet.
Box 120, Dept. 120 Miami Beach, Fla. 33139

Windjammer
Barefoot Cruise



DIVE the Beautiful
FLORIDA KEYS with your
hosts RON & JOAN SCHILKE

Ph. (305) 743-5555

Complete Diver &
Family Resort
5 minutes from
Airport

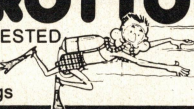
- Family Units—Villas—A/C—TV
- Lessons—Pool—Boat & Equip. Rentals
- Air Station—Repairs—U/W Photography
- Ramp—Marina—Fuel—Charter Boats
- Restaurant—Lounge—Tiki Bar—Tennis

FREE MAP & BROCHURE—TARPON LODGE—MARATHON, FLORIDA 33050

FOR SALE — Established and successful live aboard diving boat operation on prime Caribbean island. Proven record of repeat business. Owner willing to train new owner in all aspects of business. Asking price in excess of \$100,000, so serious inquiries only. Please contact:

Dive Ventures
463-31st. Ave., San Francisco, CA 94121

INDIVIDUAL DIVE TOURS with
Guide TOM MCQUARRIE, in
BLUE GROTTO
RESERVATIONS SUGGESTED
Rt. 2, Box 460-B
Williston, FL 32696
(904) 528-6684, Evenings



DIVE PUERTO RICO

10 days \$595 all incl.

3 daily meals, room
Unltd. day diving, air
Snorkel, boat, rock diving
Scuba, instr., night diving
Gorgonians coral, reef
Single, groups invited
5 min. Cerromar Hotel
½ hr. met. San Juan
Brochures: Cap de Mar Dive Resort
Box 29691, 65th. Inf. Sta., Río Piedras, P.R. 00929
Tel. (809) 762-8032

MEDIC ALERT

will speak for you—
when you can't!

... ask CAROL BURNETT



One out of every five Americans has a hidden medical condition, such as allergies to penicillin or other medication, heart problems, diabetes and epilepsy. These are only some of the more than 200 reasons that more than one million people have joined Medic Alert.

When you can't speak or communicate due to an accident or sudden illness Medic Alert can provide protection and peace of mind twenty-four hours a day for LIFE.

FOR INFORMATION:

Write Medic Alert
Foundation International, P.O. Box
1009CB, Turlock,
Ca. 95380. A non
profit, charitable
and tax-exempt
foundation.



Attention Diving Clubs

SKIN DIVER has a special diving club rate available for group orders. (Magazine will still be delivered to each member's home.)

skin diver

6725 Sunset Boulevard,
Los Angeles, CA 90028

Attn: Carolyn Murray

Please send details on SKIN DIVER's club subscription rate.

Club Name _____

Your Name _____

Street _____

City _____

State _____

ZIP _____

HOW TO PACK

(Continued from Page 97)

the height of the object. As a rule, never cut the last layer.

To cut the foam, you can use a sharp razor blade, a saber saw with a knife blade, an electric knife or even a sharp steak knife. Hold the knife or blade in a vertical position and cut the foam along the inside edge of the trace marks. By cutting 1/16 inch inside the lines, you will ensure a snug fit and prevent the equipment from shifting inside. After the cut-outs are removed, you are ready to insert the camera equipment.

LABEL YOUR LUGGAGE—It goes without saying that all luggage should be identified. In fact, the law requires air travelers to have an identification tag on all luggage. Sometimes luggage tags become separated from handles by accident. And, considering the cost of the contents, it is wise to place an additional identification sticker directly on the case. In addition, a sticker (supplied free by the airlines) should also be placed inside the case where it would be impossible to lose accidentally.

Note, too, that identifying your luggage with your name and address is one thing, but attaching stickers and decals that reveal the contents as camera gear is advertising for a thief.

LOCK THE CASE — All camera cases should be locked. Zero Halliburton cases come with a combination lock. Oceanic's Environmental Cases come with a special locking latch that can be secured with a padlock or some other locking device. A ¼-20 stainless steel screw and lock nut is an effective safeguard for this type of hasp. Most rip-offs occur in the luggage loading area unseen by the traveler. The thief usually does not take the whole case because it is too large. Instead, he quickly forces open a case, takes a lens or something small and closes the lid. The loss is usually not detected until much later, when it is too late. With a simple ¼-20 screw and lock nut, it would take the thief several minutes to disassemble it, providing he happens to be carrying an adjustable wrench and screwdriver in his back pocket.

REGISTER YOUR EQUIPMENT — Be sure to register all of your equipment and serial numbers with U.S. Customs before leaving on a trip out of the country. Otherwise you might be liable for duty when you return. It is a simple procedure and takes only a few minutes of your time. The official registration form is kept in your possession and need not be rewritten for future trips.

TO SUM UP — Remember that luggage quite often receives rough handling but, if your camera gear is safely embedded in foam, it will withstand the rigors of travel quite nicely.

WE'VE HOOKED SOME OF THE BEST FISHERMEN IN THE COUNTRY.



IT MUST BE THE BAIT WE USE.

- ★ Private Boat Slips
- ★ Deep-Sea Charters
 - Back-Country Fishing
 - Tarpon/Bone Fishing
 - Blue Water Fishing
- ★ Access to the Gulf and Atlantic
- ★ Pier-Side Bar
- ★ Full-Service Restaurant
- ★ Lounge with entertainment
- ★ Activities for all family members
- ★ Convention and meeting facilities
- ★ All reservations guaranteed

**HOLIDAY ISLE
RESORT**

Call Toll Free: 800-327-7070

In Florida: 1-800-432-2875

or write: Ms. Rita Parker

HOLIDAY ISLE RESORT

P.O. Box 588, Islamorada, FL 33036

© Copyright, Holiday Isle Resorts 1978



CHUB CAY, BERRY ISLANDS

Chub Cay Club

THE BAHAMAS NEWEST AND FINEST DIVING CENTER



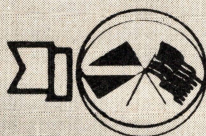
At the tip of the Tongue of The Ocean—A private island with virgin beaches crystal-clear waters and some of the finest diving in all The Bahamas.

- Reefs, walls, wrecks & blue holes
- Three dive boats & three dives daily
- Record-setting big game fishing & miles of bonefish flats
- Tennis, swimming—sailing & shelling.

Dive packages include •Round-Trip airfare from Miami or Ft. Lauderdale •Airport transfers & gratuities •Air conditioned room overlooking the pool & marina •Breakfasts & dinners •Three dives per day including tanks. Low Summer Rates from April 15 to December 14 4 days/3 nights \$299 and 8 days/7 nights \$513 per person, dble occupancy For complete information and reservations •Write **Underwater Unlimited** 216 Palermo Avenue, Coral Gables, Florida 33134 •Or Call (305) 445-7837.

ENJOY A VACATION DIVING, NOT A DIVING VACATION

with



Harry Keitz's

AMERICAN DIVING HEADQUARTERS, INC.

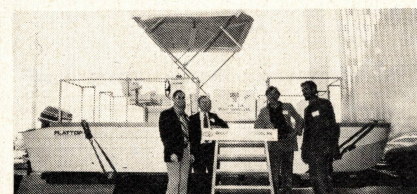
in JOHN PENNEKAMP STATE PARK



Call/write for reservations or information: **AMERICAN DIVING HEADQUARTERS**
Rt. 1, Box 274 B, Key Largo, Florida 33037
Phone (305) 451-0037 **All Major Credit Cards Accepted**

ADMIRAL'S ARMS NEW DIVE BOAT

The Admiral's Arms Inn of South Caicos, West Indies, has acquired a new dive boat. The *Reef Runner* is a 22 x 8 foot Bristol Bluewater Flattop specially configured to comfortably



carry nine divers and all their equipment to the varied dive sites along the South Caicos wall. This particular Flattop is also to be featured in an upcoming Playboy Playmate of the Year pictorial.

With the addition of its latest vessel, the Admiral's Arms fleet will consist of two Flattops and three Bonair inflatables, along with two Sunflower sail boats, making it the largest diving and recreation fleet in the Turks and Caicos.

Pictured are (left to right) Dave McKnight and Andy Leonard of Turk-Cai Watersports, Ltd., and (left to right) Mac and Jock McGregor of Bristol Bluewater Boats.

For further information on diving the *Reef Runner*, contact: Co-Pilot Travel Consultants, 6201 Leesburg Pike, Falls Church, VA 22044, or Bristol Bluewater Boats, P.O. Box 308, Norwalk, CT.

KEY WEST PHOTO COURSE

The National YMCA will conduct a week long combination basic and instructor underwater photography course this summer. The course is divided into a four day Basic Course, July 9 through July 12, and a two day Instructor Course, July 13 and 14.

Divers who complete the Basic Course will receive YMCA Underwater Photography certification, and those who complete the Instructor Course will be certified to teach Underwater Photography for the YMCA.

Tuition for the Basic Course is \$279. This includes all underwater photography equipment, boat fees, air fills, and film processing. Tuition for the Instructor Course is \$149. If you are qualified, however, you can take both courses for a total tuition of \$379, a savings of more than 11 percent. Accommodations and food are extra.

To register for either or both courses, write: Dick Jacoby, 4915 Pershing Road, Downers Grove, IL 60515.



Explore the Caribbean. From the bottom up.

Dive through sunken grottoes in hidden coves. Amid undersea castles and derelict sailing ships. In waters clear as emerald and teeming with marine life.

We at National combed the islands to bring you the seven ultimate aquatic packages of the Caribbean. Most of them offer other sports as well as daily diving with boat and guide. So you'll just have to dive into them, literally, to know how great they are.

Prices are per person, double occupancy, 4/15 to 12/14/79. Airfare not included.

Tortuga Club, The Caymans. Underwater Castle and famous shipwreck. 7 nights. Daily breakfast and dinner. \$410.

Bob Soto's Lodge, The Caymans. Live coral reef offshore. 7 nights. Daily breakfast and dinner. \$245.

The Current Club, North Eleuthera, The Bahamas. Snorkeling, water skiing, too. 7 days. Private cottages; 3 meals daily. \$348.

Anthony's Key Resort, Roatan, Honduras. For experts and beginners. Certified instructors on staff. Tahitian-style bungalows. 7 nights. \$369.

Club Caribbean, Runaway Bay, Jamaica. 7 nights. Private cottage. Daily breakfast and dinner. Nightly entertainment and disco. \$330.

The Seven Mile Beach, The Caymans. Dive with Bob Soto and his crew. 7 nights at the Beach Colony Club, Cayman Sands Village, Holiday Inn or The Royal Palms. From \$240 to \$350.

Dive Bonaire/Flamingo Beach Hotel, Bonaire, Netherlands Antilles. Underwater salt flats that change color. 7 nights. Breakfast and dinner daily. \$326.

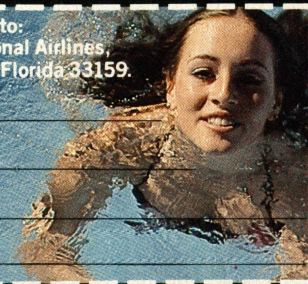
For complete information mail to:
Manager of Sports Sales, National Airlines,
P.O. Box 592055/AMF, Miami, Florida 33159.

Name _____

Address _____

City/State/Zip _____

My Travel Agent is _____



National Airlines



CAYMAN

King of the mountain

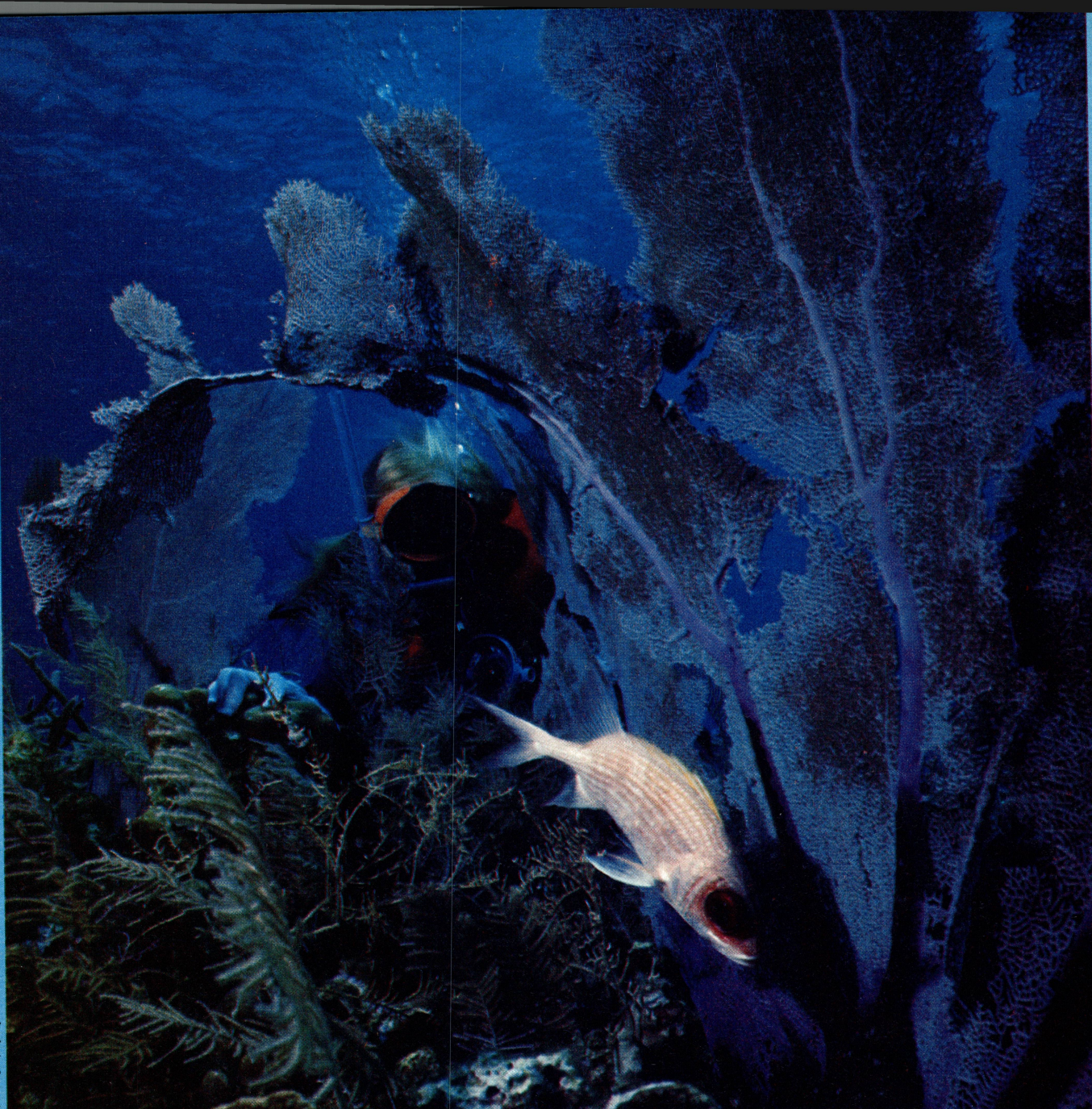
Dallas diving enthusiast Sherry Burns snorkels over the wreck of the Balboa while divers below feed a school of sergeant major tropicals. Cayman is an ideal playground for snorkelers, wreck, cave and wall divers, fish watchers and photographers. **By Paul J. Tzimoulis**



Cayman is to diving what Aspen is to the snow skiing community. Perched high atop a submerged mountain range in the Caribbean, this small tropical island has become a major hub of the resort scuba business. It is a mecca for thrill seeking undersea adventurers, vacationing families who enjoy diving and sun worshippers escaping from severe winters in the north.

Yet, Cayman is more than a place — it is a state of mind. To the diver, Cayman represents the high pinnacle of pleasure for his chosen sport. To be "Caymanized" is the ultimate baptism for newly certified divers, and the highest possible reward for those difficult hours of training. A person cannot really be serious about diving if he/she has not been to Cayman at least once. And for some, an annual pilgrimage to these isles of delight is a must.

Each year, Cayman's diving reputa-



Fish watching is one of the most popular pastimes among Cayman divers. The reefs here abound with all forms of fascinating marine life.

tion grows. Stories of its fantastic undersea attractions have traveled to all parts of the world and divers from over 100 nations have visited this island. And although the number of visiting divers increases, Cayman is far from becoming overcrowded, for there are literally miles and miles of undersea reefs which could easily accommodate 100 times the present number of visitors.

Each year Cayman grows better, as the scuba facilities expand and improve. The dive boats are getting larger as new ones replace wornout hulls. Scuba services excel in attitude and promptness as competing companies become eager to satisfy their customers and attract more business. Cayman is presently enjoying a wild west bonanza in diving

tourism and an unprecedented growth rate in the island's economy — all because of scuba.

The magic of Cayman lies in its incredible variety of undersea attractions. It is virtually a supermarket of scuba adventures, providing the visitor with a wide range of choices and enjoyment. Whatever the visitor's level of scuba experience or range of personal interest, Cayman has something special to offer. It is an ideal playground for snorkelers, beginning scuba divers, shipwreck enthusiasts, cave divers, wall divers, fish watchers and underwater photographers.

WALL DIVING

Cayman is probably best known for its

spectacular drop-offs and vertical wall dives. The island is actually the peak of a submerged mountain and drop-offs can be found on just about every side. These breathtaking formations begin at depths varying from 50 to 80 feet and plummet straight down. Visibility is frequently 150 feet or better. It is a humbling, emotional experience to see an immense portion of a living coral reef, almost the size of a football field, and realize the staggering proportions of nature's handiwork. The experience is as beautiful and as thrilling as a trip to the Grand Canyon or a flight through the Rocky Mountains.

SPONGE CAPITAL

Over the years, Cayman has been christened with many colorful

nicknames, but the title, "Sponge Capital of the Caribbean," seems most appropriate. Nowhere else will a visitor find so many or such a variety of sponges. There are some species of basket sponges so large that you could park a Volkswagen inside. There are barrel sponges eight feet tall and large enough to swallow a diver. The sponges have a dazzling brilliance. Cayman is one of the few places in the Caribbean where a diver can photograph the bright red vase or the canary yellow tube sponges.

WRECK DIVING

As for wreck diving, Cayman is blessed with one of the most fun wreck dives in the entire Caribbean. Conveniently located 200 yards off the town dock, the *Balboa* is in just the right depth — it can be enjoyed by practically any new diver or snorkeler. It is probably the most dived and best known shipwreck in the Caribbean waters today.

The *Balboa* was a 375 foot long steel freighter which sank during a hurricane in 1932. The hull was subsequently dynamited because she was a hazard to navigation, and her wreckage is now scattered over five acres of ocean bottom. Depths range from 15 to 35 feet and the underwater visibility can be as good as 100 feet. On busy days there are often five or six dive boats visiting this ship-

Georgetown Harbor. Both Soto's Reef and Eden Rocks are massive coral reef formations located in shallow water near shore. They are honeycombed with canyons, winding tunnels, and large coral caves. Sunlight streams into the reef's inner chambers from cracks and holes in the coral ceiling, illuminating the shadowed recesses of these hidden rooms. A dive light is helpful for revealing the details and rich color of the marine life living in these darkened passageways. Cave diving in these safe and simple coral complexes is much like exploring a haunted house, and there is no danger of becoming lost.

For the more experienced cave diver, there are deeper caves and tunnel formations along the north wall, as well as along the drop-offs on the west side of the island. Here, dive lights are mandatory because of the depth and the size of the cave formations.

SNORKELING

Cayman is neither limited nor reserved for expert scuba divers or wall diver adventurers. There is another, gentler side to Cayman's undersea attractions. The island offers some of the finest snorkeling and shallow water skin diving to be found in the Caribbean. The north side and east end of the island have some of the finest elkhorn and staghorn coral formations to be found anywhere. The wreck of the *Cali* lies in 8 to 20 feet of water, providing a fascinating view for surface explorers. Even the wreck of the *Balboa* is an exciting snorkeling experience for those who do not scuba dive.

FISH WATCHING

For those interested in fish watching, Cayman can only be described as superb. One would think that the tremendous influx of divers would cause the marine life to disappear, but just the reverse has happened. Cayman dive guides have made friends and pets among the undersea animals which abound on Cayman's reefs. Bringing bread crumbs or other food tidbits to the *Balboa* is much like feeding the pigeons in Central Park. Hundreds of small sergeant majors are immediately drawn to the diver like bees to honey. At times, there may be 300 fish swarming around the diver and enveloping him in a cloud so thick that the diver is no longer visible.

Cayman is one of the few places in the world where a diver can still see giant tarpon at close range, play with an octopus on a night dive, watch a school of eagle rays cruise along the drop-offs, or get a close-up picture of a stingray

sleeping in the sand. The reefs around Cayman are much like a giant underwater zoo filled with remarkable marine life and fascinating fish behaviour. There is a pet moray eel, called Waldo, which lives on a reef off Casa Bertmar. He is so friendly that you can pet him or photograph him inches from the camera lens.

VIRGIN REEFS

For those interested in exploring virgin reefs, Cayman still has plenty. The island is 22 miles long but most of the current diving activities are concentrated along the west side of the island and a small portion on the north side. There are still some 30 to 40 miles of coral reef which are seldom dived and mostly unexplored. Two dive resorts at the east end of the island provide a stepping stone to these virgin reef areas.

THE LESSER CAYMANS

Cayman is not one island, but actually three, Grand Cayman, Little Cayman and Cayman Brac. The two smaller islands, Little Cayman and Cayman Brac, are located some 75 miles northeast of the main island. Two of the few remaining wilderness areas in the Caribbean; they remain undeveloped and unpolluted by commercial industry. Diving this area is made possible by two dive hotels located on Cayman Brac, complete with two scuba facilities and dive boats. If you are a vacationer who prefers to get away from it all, Cayman Brac is the perfect answer.

ISLAND FACILITIES

Cayman's variety does not stop at the water's edge. Part of its magic is the amazing selection of accommodations, including luxury hotels, economical guest houses, specialized full service dive resorts, condominiums for divers and specialized dive/cruise boats which offer four to seven day dive trips. Whatever your personal preference, whatever your budget limits, there is a place in Cayman for you.

As for dive services, there are some 18 different dive operators located on Grand Cayman and nearby Cayman Brac. The combined inventory of equipment in this group totals some 30 air compressors, 1600 scuba tanks, and 33 dive boats. There are over 45 well-qualified underwater guides to take care of your dive needs. Cayman is not just one or two dive hotels, but rather an entire community of dive resort services and hoteliers. Few places offer such a selection. The following pages list all of the dive operators and their services. ➤

CAYMAN

King of the mountain

wreck at different times of the day.

Underwater, the wreck is virtually a natural studio for the undersea photographer. Her steering section proudly displays a huge three-blade propeller which is ideal for pictures. There are boilers, beams, portions of railing, and other structures to explore and photograph. The entire area is loaded with small marine life and schooling fish.

CAVE DIVING

If coral cave exploration tickles your fancy, you will find Cayman an endless chain of fascinating dives. Beginning divers will find some excellent cave and tunnel diving available just north and south of the *Balboa* wreck close to

Dive Operators of

DIVE OPERATION	MANAGER	CAYMAN TEL.	COMPRESSORS	TANKS	BOAT/CAPACITY	DIVE GUIDES	HEAD GUIDE	DIVE TRIPS	TRIP PRICE
Spanish Bay Reef Resort West Bay	Tom Ebro	93765	Worthington 16 CFM Mako K-14/7 CFM Mako K-15/15 CFM	150 steel K-valve	34 ft. Flattop/20 divers 34 ft. Flattop/20 divers 38 ft. Striker/15 divers	3	Peter Milburn	9:00 am—1 tank dive 1:00 pm—1 tank dive 8:00 pm—Night dive (every night)	\$ 20.00 20.00 20.00
F.L.A.G. Royal Palms Royal Palms Hotel	Glen Galtore	92636	Mako K-15/15.5 CFM	90 alum. J-valve	46 ft. aux. ketch/20 divers 36 ft. dive barge/25 divers 24 ft. ski barge/8 divers	3	Glen Galtore	8:30 am—2 tank dive 2:00 pm—1 tank dive 7:00 pm—Night dive	\$ 22.50 15.00 22.50
Sunset Divers Ltd. Sunset House	Adrien Briggs	92511	Worthington 20 CFM Rix 20 CFM	175 alum. K&J valve	35 ft. dive barge/25 divers 32 ft. skiff/20 divers	3	Stewart Freeman	9:30 am—2 tank dive 9:30 pm—Night dive 4 day/3night— 6 dives 8 day/7 night/12 dives	\$ 20.00 20.00 140.00 320.00
Surfside Watersports, Galleon Beach Hotel	Dick Dixon	92724	Mako 9 CFM Mako 9 CFM	125 steel & alum. J-valve	26 ft. Sea Truck/15 divers 36 ft. Sea Truck/20 divers 31 ft. Bertram/8 divers 32 ft. Flattop/25 divers	5	Edward Kelley	9:30 am—2 tank dive 1:30 pm—1 tank dive 6:30 pm—Night dive	\$ 25.00 20.00 25.00
Bob Soto's Holiday Inn Dive Shop	Bob Soto	94091 Ext. 6	Compressor located downtown	24 alum. K-valve	50 ft. dive barge/40 divers	6	Bob Soto	9:00 am—2 tank dive 2:00 pm—1 tank dive	\$ 22.50 17.50
Bob Soto's Diving Center Downtown	Bob Soto	92483	Ahrendts 15.5 CFM Mako 8.5 CFM Mako 8.5 CFM	150 alum. K-valve	45 ft. dive barge/25 divers 28 ft. open skiff/8 divers	3	Bob Soto	8:30 am—2 tank dive 2:00 pm—1 tank dive 7:30 pm—Night dive	\$ 22.50 17.50 25.00
Bob Soto's Diving Lodge East End	Phil Sciamonte	72483	Mako K-15/16 CFM	60 steel K-valve	33 ft. open skiff/20 divers	2	Phil Sciamonte	8:30 am—2 tank dive 1:00 pm—2 tank dive	\$ 22.50 22.50
Scuba Cayman Ltd. Beach Club Colony Hotel	Clinton Ebanks	92023	Mako K-15/16 CFM	56 alum & steel K-valve	46 ft. dive barge/25 divers	2	Clinton Ebanks	9:00 am—2 tank dive 2:00 pm—2 tank dive 7:30 pm—Night dive	\$ 20.00 16.00 18.00
Casa Bertmar Diving Resorts	Doyce Hemphill	95790 92514	Ingersoll-Rand 15 CFM	75 steel & alum. K-valve	36 ft. custom/25 divers	2	Kent Eldemire	9:00 am—2 tank dive 2:00 pm—2 tank dive 8:30 pm—Night dive	\$ 25.00 25.00 20.00
Tortuga Club, Ltd. East End	David Ball	72488	Mako K-14-85/ 9.2 CFM Worthington 15 CFM	60 steel K-valve	34 ft. open skiff/30 divers	2	Jim McCallister	9:30 am—2 tank dive 2:30 pm—1 tank dive 9:00 pm—Night dive	\$ 29.00 19.00 25.00
Cayman Kai Resort Dive Shop	Gale & Ann Anspach	72573	Worthington 15 CFM Mako K-15/16 CFM	100 steel J&K valve	28 ft. Flattop/20 divers 22 ft. Aquasport/8 divers 22 ft. Aquasport/8 divers 22 ft. Aquasport/8 divers	4	Steve Small	9:30 am—1 tank dive 1:30 pm—1 tank dive 7:30 pm—Night dive	\$ 20.00 20.00 25.00
F.L.A.G. U/W Services Ltd. North Church St.	Jerry Willcocks	92606	Bauer 7.1 CFM Bauer 4.3 CFM Bauer 4.3 CFM	80 steel J&K valve	None—retail & rental only — cater to beach divers	1	Jerry Willcocks	Single tank with air Regulator and gauge	\$ 3.25 3.25
Capt. Marvin Governor's Harbor Block 17	Marvin Ebanks	93210	None	None	34 ft. Crusader/15 divers	None		9:00 am—2 tank dive 9:00 am—1 tank dive (with seafood lunch) Dive gear not included	\$ 20.00 18.00
Seasports	Capt. Butch	94430	No compressor	45 alum. K-valve	36 ft. trimaran/7 divers 36 ft. trimaran/7 divers 31 ft. trimaran/7 divers 24 ft. Hydrodyne/7 divers	3	Capt. Butch	9:30 am—2 tank dive 2:30 pm—1 tank dive 7:00 pm—Night dive	\$ 25.00 20.00 20.00
M.V. Cayman Diver	Paul Humann	None	Mako 8 CFM Mako 8 CFM	20 steel K-valve	83 ft. custom/12 divers	2	Paul Humann	4:00 pm—Saturday— 1 week trip with unlimited diving	\$700.00
M.S. Ports of Call Motor Sailer	Steve Davis	95848 95773	Poseidon 7.5 CFM Poseidon 7.5 CFM	61 steel K&J valve	113 ft. Motor Sailer/18 divers	1	Leonard Wood	6:00 pm—6 day cruise 6:00 pm—4 day cruise	\$750.00 500.00
Maelstrom Divers Ltd., Brac Reef Hotel, Cayman Brac	Jim Ketrow	87323	Worthington 15 CFM	130 steel K-valve	22 ft. custom/10 divers 32 ft. custom/30 divers	3	Bill Cass	9:30 am—2 tank dive 2:00 pm—1 tank dive 9:00 pm—Night dive	\$ 20.00 10.00 10.00
Brac Aquatics, Buccaneer Hotel, Cayman Brac	Winston McDermott	87257 87429 (home)	Worthington 12 CFM Worthington 10 CFM Mako 7.2 CFM	220 steel J-valve	40 ft. custom/52 divers 26 ft. skiff/15 divers 42 ft. trimaran/45 divers	4	Winston McDermott	9:00 am—2 tank dive 2:00 pm—1 tank dive All day—3 tank dive 9:00 pm—Night dive	\$ 25.00 9.00 32.00 9.00

the Cayman Islands

DIVE SPOTS		INSTRUCTION	COURSE PRICE	SPECIAL EVENTS	PRICE	MAILING ADDRESS	U.S. BOOKING OFFICE
Josh's Canyon Martini's Wall Estell's Wall	Jimmy's Wall Hepp's Pipeline Peter's Reef	All day resort course/boat dive All week certification course/12 dives Scuba refresher course 6 day U/W photo course 6 day marine biology course	\$ 60.00 225.00 20.00 220.00	Full day boat dive trip & beach cookout Full day offshore pinnacle dive (2 tanks)	\$ 50.00 100.00	Spanish Reef Resort P.O. Box 800 Grand Cayman, BWI	Spanish Bay Reef Reserv. P.O. Box 16531 Irvine, Ca. 92714 (714) 540-9455
Orange Canyon Trinity Caves The Chute	Eden Rocks The Corkscrew The Pinnacles	6 hour resort course/boat dive 40 hour PADI cert. course/5 boat dives 10 hour YMCA adv. course/10 dives	\$ 50.00 205.00 150.00	All day dive/sail charter/3 tanks All day North Wall dive trip/2 tanks X-Rated beach picnic (couples only)	\$ 30.00 30.00 25.00	F.L.A.G. Royal Palms P.O. Box 490 Grand Cayman, BWI	Cayman Island Reserv. Service 250 Catalonia Ave., Suite 604 Coral Gables, Fl. 33134 (305) 444-6551 (Info.) (305) 448-3634 (Reservations)
Eden Rocks Angel Reef Balboa Wreck	Devil's Grotto Eagle Ray Rock The Chain	6 hour PADI resort course/boat dive PADI certification course	N/A \$200.00	All day North Wall trip/2 tanks with a beach cookout Beach diving any day off hotel	\$ 18.00	Sunset House P.O. Box 479 Grand Cayman, BWI	Cayman Islands Reserv. Service 250 Catalonia Ave., Suite 604 Coral Gables, Fl. 33134 (305) 444-6551 (Info.) (305) 448-3634 (Reservations)
The Tunnels Trinity Caves Three Trees Balboa Wreck	Eden Rocks Sand Chute Shark Hole	6 hour resort course/boat dive 6 day PADI cert. course/3 tank dives	\$ 60.00 250.00	Dinner Cruise	N/A	Surfside Water Sports P.O. Box 891 Grand Cayman, BWI	None
Trinity Caves The Tunnels Sand Chute	Hepp's Pipeline Slaughterhouse Anchor Reef	3 hour resort course 6 day PADI or YMCA cert. course	\$ 30.00 150.00	All day North Wall trip/2 tanks and seafood lunch North Shore snorkeling (Reef Dive)	\$ 30.00 18.00	Bob Soto's Diving Center Box 894 Grand Cayman, BWI	None
Eden Rocks Soto's Reef Pageant Beach Reef	Tarpon Alley Canyon Reef Balboa Wreck	Scuba classes conducted at Holiday Inn Shop		None		Bob Soto's Diving Center P.O. Box 894 Grand Cayman, BWI	None
High Rock Cave The Maze Valley of the Dolls	Snapper Hole Ironshore Gardens Three Sisters	Lodge for certified divers only		None		Bob Soto's Diving Center P.O. Box 894 Grand Cayman, BWI	None
North Wall NW Point Drop-off Clint's Reef	Big Tunnel Sand Chute Trinity Caves	5 hour resort course/boat dive	\$ 50.00	All day dive trip to North Sound Wall with 3 tank dive & box lunch. All day dive trip to North Sound Wall with 2 tank dive & lunch cooked on board.	30.00 30.00	Clinton Ebanks Scuba Cayman Ltd. Beach Club Colony Hotel P.O. Box 903 Grand Cayman, BWI	Cayman Island Reserv. Service 250 Catalonia Ave., Suite 604 Coral Gables, Fl. 33134 (305) 444-6551 (Info.) (305) 448-3634 (Reservations)
South Sound Drop-off The Tunnels Trinity Caves Eagle Ray Rock	Governor's Reef South Sound Arch Kent's Caves	3 hour resort course/beach dive 32 hour PADI open water cert.	\$ 20.00 150.00	Beach dives right off hotel Waldo moray eel dive off hotel with guide	None \$ 10.00	Casa Bertmar Diving Resort P.O. Box 637 Grand Cayman, BWI	Cayman Islands Reserv. Service 250 Catalonia Ave., Suite 604 Coral Gables, Fl. 33134 (305) 444-6551 (Info.) (305) 448-3634 (Reservations)
High Rock Grouper Grotto Cinderella's Cathedral	Darby's Fantasy Pancake Wreck Wreck of the Ten Sails	3 hour resort course & boat trip 6 day PADI cert. course	\$ 55.00 300.00			Tortuga Club Ltd. P.O. Box 496 Grand Cayman, BWI	Cayman Islands Reserv. Service 250 Catalonia Ave., Suite 604 Coral Gables, Fl. 33134 (305) 444-6551 (Info.) (305) 448-3634 (Reservations)
Gale's Mountain Grand Canyon Pinnacle One	Long Tunnel Cathedral Queen's Throne	4 hour resort course	\$ 55.00	Full day snorkeling and picnic trip	\$ 20.00	Cayman Kai Resort P.O. Box 1112 Grand Cayman, BWI	Hotel Plans Inc. 1301 West 22nd Street Oakbrook, Il. 60521 (312) 887-8088
Eden Rocks Sea View Reef Cali Wreck Soto's Bay West Bay	Spot's Bay Pedro Castle N.W. Point Spanish Bay	Individual training resort course (4 hours) Equipment rental extra	\$ 40.00	Offers special dive map of beach diving sites	\$ 1.00	F.L.A.G. Underwater Services Ltd. P.O. Box 446 Grand Cayman, BWI	None
Baker's Cay Wall Fisherman's Rock Wall	Four Way Reef Rum Point Water Cay Channel	None		North Sound snorkeling tour and lunch — complete boat charter	\$ 75.00	Capt. Marvin Ebanks P.O. Box 305 West Bay Grand Cayman, BWI	None
Gill's Grotto Orange Canyon Big Tunnels	Spot's Bay North Sound Trinity Caves	½ day resort course YMCA certification course EBCC certification course U/W photo guide	\$ 55.00 180.00 180.00 10.00	Dinner/Night dive All day 2 tank dive trip/lunch aboard	\$ 30.00 33.00	Seasports P.O. Box 1516 Grand Cayman, BWI	None
Spots Bay Orange Canyon South Coast Coral Garden	Rum Point Wall Northeast Wall Northwest Wall	None		Cayman/Swan Island/Roatan dive cruise — 11 days	\$900.00	Paul Humann c/o See & Sea Travel Service 680 Beach St. Suite 340/Wharfside San Francisco, Ca. 94109	See & Sea Travel Service 680 Beach St. Suite 340/Wharfside San Francisco, Ca. 94109 (415) 771-0077
Balboa Wreck North Wall Little Cayman	Cayman Brac East End South Side	4 hour resort course/boat dive	\$ 50.00	Sailing, bone fishing, water skiing, beachcombing, beach cookouts	All incl.	Diveship Ltd. P.O. Box 1555 Grand Cayman, BWI	Cayman Cruises, Inc. P.O. Box 19067 Houston, Tx. 77024 (713) 781-2432
Grand Canyon Duppy's Reef Ramparts	The Pinnacles Jackson's Point Bloody Bay	PADI certification course 8 hour resort course/boat dive	\$200.00 100.00	Moonlight cruise	\$ 10.00	Maelstrom Divers Ltd. c/o Red Carpet Flying Service Clearwater Airport Clearwater, Fl. 33520	Red Carpet Flying Service Clearwater Airport Clearwater, Fl. 33520 (813) 535-2790
South Wall Pink Coral Wall Jackson's Wall	Bloody Bay Soto Trader Wreck Channel Dive	½ day resort course	\$ 40.00	All day dive trip to Little Cayman — 3 tanks	\$ 32.00	Brac Aquatics Box 68 Cayman Brac, Cayman Islands, BWI	Red Carpet Airlines P.O. Box 685 Land O Lakes, Fl. 33539 (813) 996-4944

THE MOST INCREDIBLE DIVE TOURS EVER. LA MER'S RED SEAFARIS.

Instead of diving in places you've always read about, imagine days of unlimited diving in places most people never even *heard* about, or dived at.

Let La Mer's native Israeli guides escort you from N.Y. into the unexplored waters and reefs of the exciting Red Sea. The wild reefs at Ras Abu Galum, Hibeck, the canyon in Dahab, the dazzling Straights of Tiran, breathtaking Ras Mohammed, and more.

La Mer's philosophy is to give divers the adventure of their lives; and that's because we're all divers ourselves.

The Explorer Seafari.

For 10 days, our guides will accompany you by Mini-bus, 4-wheel drive vehicles, even by camel-back across the desert to reach those most remote sites along the 100 miles of the Red Sea Coast. Our exclusive Seafaris include unlimited diving and night diving, 4-star hotels, Seafari camping, desert tours and a 2-day guided tour of Jerusalem.

The Cruise/Dive Seafari.

For 10 full days our 90 ft. luxury diving cruiser, the only such cruiser on the Red Sea, will explore the 150 miles of coastline. This

is a magnificent, fully equipped boat designed especially for diving in luxury. Staterooms are double occupancy with air conditioning and showers. The tour includes gourmet meals and diving—lots of it—including night diving in places unreachable any other way, and a 2-day guided tour of Jerusalem.

So, let La Mer take you to a world you never knew existed. One you certainly won't forget. Call or write for more information.

La Mer Diving Seafari, Inc.,
453 F.D.R. Dr., N.Y., N.Y. 10002
(212) 674-4144, (800) 223-7408.

La Mer Diving Seafari, Inc.,
453 F.D.R. Dr., N.Y., N.Y. 10002

Please send more information on your:

☐ Cruise/Drive Seafari ☐ Explorer Seafari

Name _____

Street _____

City _____

State _____

Zip _____

Club or Affiliation _____

(Group inquiries invited.)

LAMER/REDSEA

Dive into Bermuda's history

Our past is reflected in the wrecks of several hundred ships dating back to the 1500's and lying as a silent museum in the shallow waters of Bermuda's reefs.

Shaffer's Underwater World can take you to some of the best wreck and reef diving in the entire world. Our equipment is first class and our instructors and guides are all P.A.D.I. certified.

For a historical diving vacation, think Shaffer's Underwater World, conveniently located in the lobby of the magnificent Holiday Inn, St. George's, Bermuda.

See your travel agent, contact Holiday Inns reservations, or call or write Shaffer's Underwater World for brochures and rate sheet.

Shaffer's Underwater World
Holiday Inn, St. George's, Bermuda
(809) 297-1777 or (809) 297-8222



DISCOVER AUSTRALIA'S Great Barrier Reef

Ya wanna dive on an uninhabited coral island? Join us on the Australian Great Barrier Reef, the mightiest coral structure in the world.

Your 20 day Los Angeles to Los Angeles adventure includes:

- 14 full days of scuba diving
- Two boat dives per day
- Unlimited snorkel diving
- Tank, weightbelt and air provided
- All dives are supervised by PADI & CMAS divemasters and instructors
- First class mainland hotel accommodations
- All meals provided

COST: \$1,288 all inclusive, including Australian land, air & water transportation, intl. air fare not included.

**TAKE ADVANTAGE OF THE NEW
LOW COST INTERNATIONAL AIRFARE.**

For detailed information write or phone:

SEA LIFE INTERNATIONAL
Representative Mr. Richard Zeidat
THOMAS COOK 9359 Wilshire Blvd.
Beverly Hills, CA 90210 (213) 274-0512

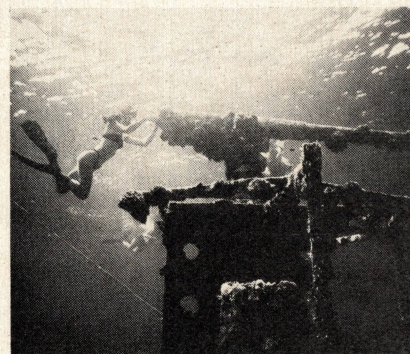
NAME _____

ADDRESS _____

PHONE _____

MICRONESIAN ODYSSEY

Sea Safaris has set the dates for its summer of Micronesian dive adventures. According to Nancy Ackerman, director of the new dive travel service, much emphasis and interest has been placed on this popular destination —



renowned for Truk Lagoon and for the prolific reefs of Palau and Ponape. Sea Safaris has developed its Micronesian program to include those areas.

Each trip lasts 17 days with 5 days of diving on Palau and 4 days of diving on Truk. Diving and exploring the island of Ponape is also available on request. Departure dates from Los Angeles are as follows: June 7, July 12 and September 13.

For information on any one of these dive adventures, contact: Sea Safaris, P.O. Box 512, Manhattan Beach, CA 90266. Or phone (213) 545-0310.

POSEIDON VENTURES TO FIJI

Poseidon Venture Tours has announced a special underwater photography dive venture to Fiji. Tour hosts Karl and Jill Wallin, owners of Wallin's Dive Store in the San Francisco bay area, are noted underwater photographers and experienced film processors. The tour will be a valuable opportunity to pick up photo tips from the experts.

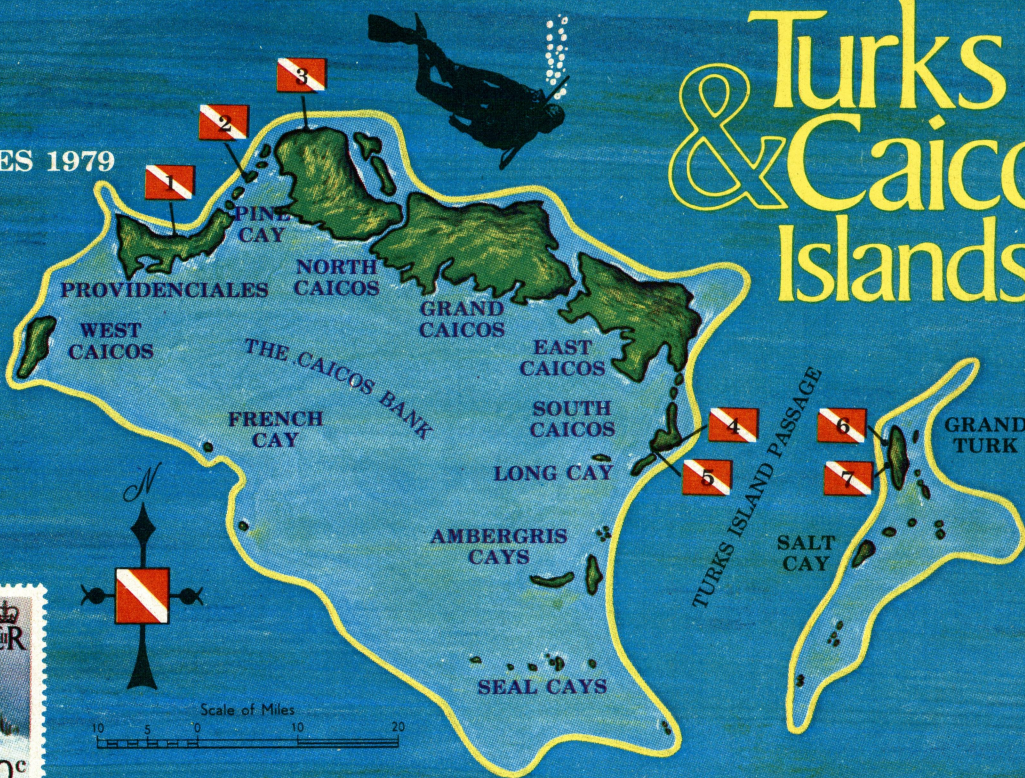
The 14 day program features exclusive diving at some of the world's finest underwater locations: Astrolabe and Beqa Reefs, Alacrity and Toberua Passes, and the Koro Sea. Departure is scheduled for June 15, 1979. The price of \$1900 includes round trip air fare from the West Coast. Also included in the package price are hotel accommodations in Suva and on the resort island of Toberua, as well as three nights on the yacht *Tau*. All meals on Toberua and aboard the yacht will be included in the package, in addition to tanks, backpacks, weightbelts, air, and guides.

For information, contact: Poseidon Venture Tours, 359 San Miguel Drive, Newport Beach, California 92660.

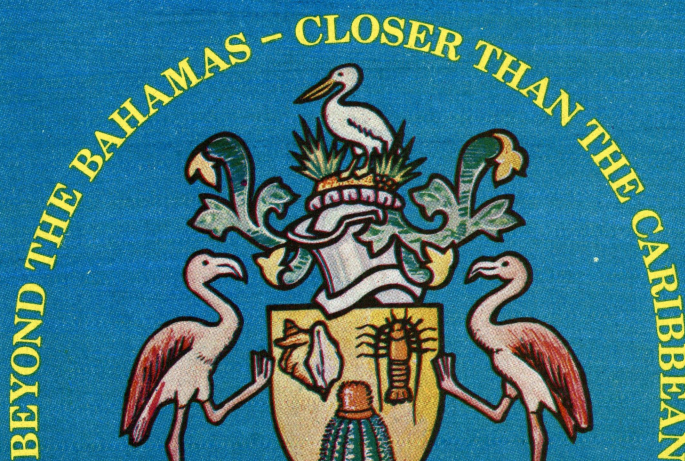
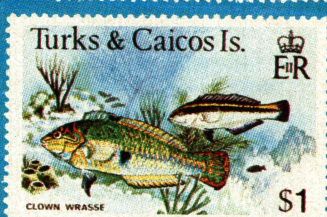
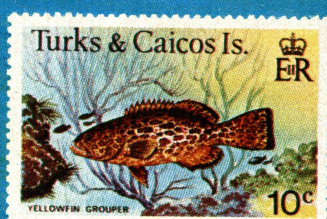
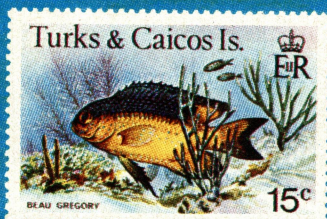
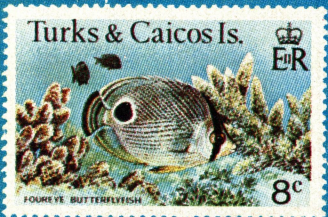
Dive

DIVE CENTRES 1979

1. Third Turtle Inn
2. Meridian Club
3. Seaquatic Divers
4. Caicos Reef Lodge
5. Turk-Cai Water Sports
6. Pepecor
7. Underwater Research



Turks & Caicos Islands

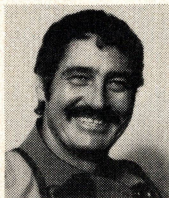


Tourist Information: (305) 526-5161
P.O. Box 592498, Miami, Florida 33159



Turks & Caicos Islands Philatelic Bureau, Grand Turk, West Indies

Welcome Aboard! "For Fun Under The Sea, Sun and Stars"



Bob Osborne
Skipper, *Dolphin One*
U.S. Coast Guard Licensed
Ocean Operator
PADI Certified
O.W. Scuba Instructor

Dive the diamond of the Gold Coast, the luminous blue waters of Hollywood, Florida. We've got it all: breathtaking reefs, fascinating wrecks, and tintillating drift diving. Unequaled diving aboard the brand new, forty foot *Dolphin One*. Departing from Divers Unlimited's complete dive and entertainment center, you are less than twenty minutes from sunlit and moonlit diving adventure.

After the diving you are just minutes away from fabulous Ft. Lauderdale and glamorous Miami and Miami Beach, offering the most exciting night life in the world. Whatever turns you on, you can find it here.

The *Dolphin One* is a Coast Guard Certified Vessel with all the safety features, full range electronics, head, and a fresh water shower.

Write or call for additional information and reservations

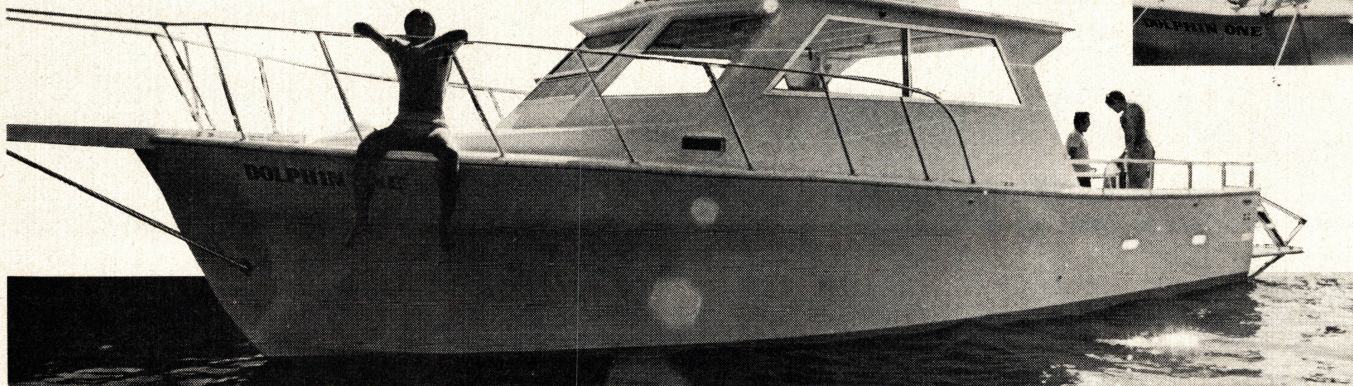
DIVERS UNLIMITED, INC.

4231 Hollywood Blvd., Hollywood, FL 33021

Phones: (305) 981-0156 / 987-7091

Awarded as the Number One
Diver Training Facility
in the U.S.A.

GROUP
RATES
AVAILABLE



THE CAYMANS

A "superstar" rating among the world's great dive resorts doesn't mean the Caymans are *only* for experienced divers.

A few yards from shore in depths of 14 to 40 feet, qualified beginners can explore the most beautiful reefs in the Caribbean. And there are short courses with Certified Dive Masters that will enable anyone to shallow dive in a few days.

And all major dive sites are nearby. No long trips on a dive boat or driving for miles.

No need to bring gear, either. It can be rented in all dive shops.

Dive lodges. Cottages. Oceanfront hotels. Modern apartments. Luxury clubs and villas.

One hour's flight from Miami. A little over two hours from Houston on Cayman Airways.

For further information and reservations call 305-444-6551 or write:

CAYMAN ISLANDS
DEPARTMENT OF TOURISM
250 Catalonia Ave., Coral Gables, FL 33134



PHYSICIAN'S U/W MEDICINE PROGRAM

A Physician's Program in Undersea Medicine (PPUM) will be presented by Human Underwater Biology on Grand Cayman Island August 19-26, 1979.

PPUM emphasizes the medical and physiological aspects of diving safety and education at the post-graduate medical education level. Specifically, the program is designed to acquaint physicians with the physics, physiology, characteristics and dangers of the underwater environment. Included are illustrated lecture, seminar and practical sessions which emphasize the prevention, recognition and treatment of dive accidents.

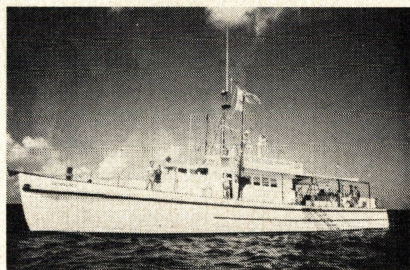
The program will be conducted at the Royal Palms Hotel located on the famous seven-mile beach on Grand Cayman. Ample time will be available for diving, which is being arranged by Glen Galtere of F.L.A.G. Divers. Program attendants will visit the Cayman Island Divers double-lock compression chamber for a demonstration.

An additional highlight to the program will be a multi-image production by Ron Stephenson of Life Below: Underwater Photography. Stephenson, an accomplished photographer, will also provide instruction in underwater photography to interested physicians and their families.

For more information write: Program Coordinator, Dept. 1250, Human Underwater Biology, P.O. Box 5893, San Antonio, TX 78201.

CAYMAN DIVER'S SEVENTH SEASON

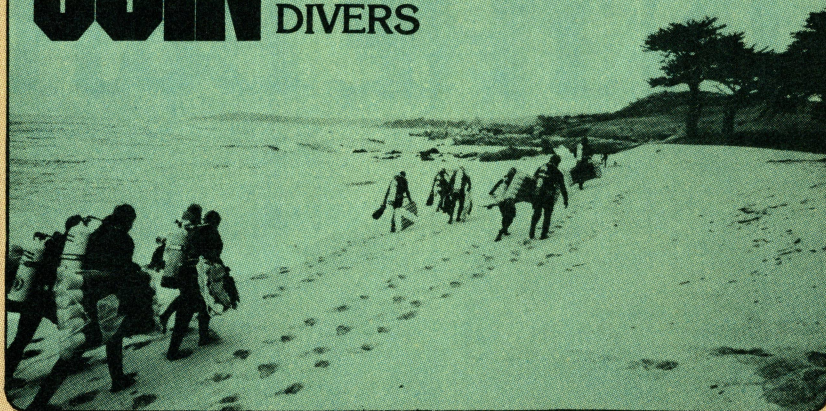
After six full seasons of offering divers some of the best of diving in the Cayman Islands, See & Sea Travel's



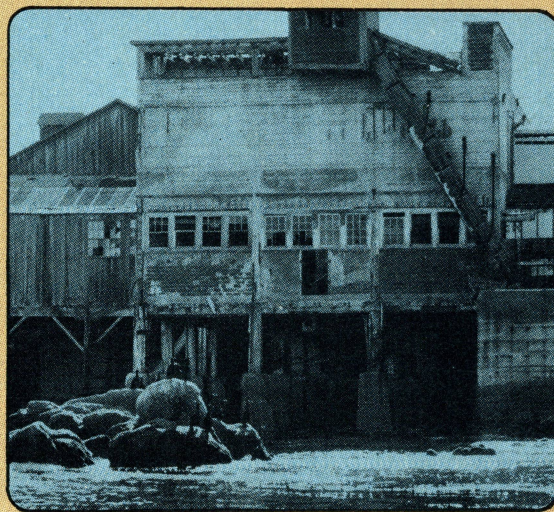
luxury dive boat, the *Cayman Diver* offers a new adventure. A special event this September is the *Cayman Diver's* cross Caribbean cruise to remote Swan Island and Roatan.

For information, contact: See & Sea Travel Service, Inc., 680 Beach Street, San Francisco, California 94109.

JOIN SAN FRANCISCO BEACH DIVERS



as they travel
north to the
rugged Sonoma
Coast and south
to the
incredible
Monterey
Peninsula
in search of
some of the most
exciting diving
IN THE WORLD!



Pick up the June skin diver

for an in depth guide to the beaches of Central and Northern California which has a marine environment so rich in plant life, invertebrates, fish and mammals that it nearly boggles the mind.

FOR SALE

17 ROOM DIVING LODGE ON 60 FEET OF WHITE SANDY BEACH

- 8,000 sq. ft. of building
- 33 ft. diesel powered dive boat
- 42 passenger bus
- 14 passenger van
- Compressor, storage tanks, tanks, etc.
- Good returns

U.S. \$295,000 NET. TERMS AVAILABLE TO RIGHT PERSON.

Contact: Bob Soto, Bob Soto's Lodge, Box 894, Grand Cayman. PH 9-2483

IT'S BETTER IN THE BAHAMAS.



International Oceanographic Foundation Photograph

There are places where turquoise water is crystal-clear. Where there's a barrier reef that's 12 feet deep on one side and 6,000 feet deep on the other.

Where staghorn coral, purple sea fans and trumpet fish put on an underwater show like you've never seen before.

Where you can dive all day and then dance all night.

The places are Nassau/Paradise Island, Freeport/Lucaya and The Out Islands of The Bahamas.

Diving packages are available for weekends or by the week, including hotel accommodations, scuba equipment, air, instruction and other extras. See your Travel Agent for

information or reservations. Or call toll free 800-327-0787. In Florida call 800-432-5594. In Dade County 443-3821. For diving information call or write the centers listed on the facing page.

It's all in The Bahamas. And it's better in The Bahamas.

BAHAMAS

Nassau/Paradise Island Freeport/Lucaya The Out Islands

FOR THE BEST DIVING IN THE WORLD...

Simply call or write these dive centers. They'll help you plan every detail of your Bahamas scuba vacation.

NASSAU/PARADISE ISLAND

Bahamas Divers Co., Ltd.⁽¹⁾
Box N-5004, Tel: (809) 322-8431

Underwater Tours⁽²⁾
Box ES-5693, Tel: (809) 322-3285

Nassau Dive Supply⁽²⁾
East Bay Street, (Pilot House)
Tel: (809) 322-4869

Nassau Underwater Explorers Ltd.^(2,3)
Box N-7816, Tel: (809) 325-5910

GRAND BAHAMA

Underwater Explorers Society^(1,2)
Box F-2433, Freeport, Tel: (809) 373-1244

Scubahamas⁽²⁾
Box F-2161, Lucaya, Tel: (809) 373-3040
Grand Bahama Hotel and Country Club⁽⁵⁾
158 Port Road, West Palm Beach, FL 33404
Tel: (305) 848-3478

ABACO

Abaco Diving Center^(1,2,3,4)
c/o Conch Inn, Marsh Harbour, Box 434
Tel: 2800

David Gale's Scuba Diving School⁽¹⁾
Parrot Cay, Hope Town

Walker's Cay Hotel & Marina⁽¹⁾
700 S.W. 34th Street
Ft. Lauderdale, FL 33315, Tel: (800) 327-1791

ANDROS

Small Hope Bay Lodges⁽¹⁾
Box N-1131, Tel: (809) 328-2014

EXUMA

Norman's Cay Club^(1,2)
Norman's Cay, 1401 N.E. 10th St.
Pompano Beach, FL 33060
Tel: (305) 785-2430

Out Island Inn⁽²⁾
George Town, Vickers & Assoc.
6065 Roswell Rd. N.E., Atlanta, GA 30328
Tel: (404) 252-8357 or (809) 336-2171

Staniel Cay Yacht Club⁽¹⁾
Staniel Cay, 1760 S.W. 67th Ave.
Plantation, FL 33317
Tel: (305) 584-3615 or (809) 334-2090

Hotel Peace & Plenty⁽²⁾
Box 55, George Town, Tel: (809) 336-2551

Minns' Water Sports,⁽²⁾ George Town

HARBOUR ISLAND

Romora Bay Club^(1,2)
Box 146, Tel: (809) 333-2325

ELEUTHERA

Cape Eleuthera Resort⁽²⁾
P.O. Box 528500, Miami, FL 33152
Tel: (305) 442-7200 or
Box 48, Rock Sound, Tel: (809) 334-2152

Current Yacht & Diving Club^(1,2)
The Current, Tel: (809) 333-2290

Winding Bay Beach Cottage⁽¹⁾
Box 93, Rock Sound, Tel: (809) 334-2020

BIMINI

Brown's Marina,⁽²⁾ North Bimini

LONG ISLAND

Stella Maris Inn,^(1,2) Box 105
Cape Santa Maria Club,^(1,2) Box 105

SAN SALVADOR

Riding Rock Inn^(1,2,3)
P.O. Box 1492, Fort Lauderdale, FL 33302
Tel: (305) 566-7441

Instructors certified by:

⁽¹⁾ NAUI, ⁽²⁾ PADI, ⁽³⁾ NASDS, ⁽⁴⁾ YMCA, ⁽⁵⁾ BSAC

SHARK RIVER INLET

BY HARRY WELLER

Everyone who passes by, or uses Shark River Inlet knows that the small Atlantic tidal river is alive with fish. But until one penetrates the surface, it is impossible to appreciate the beauty and variety of sea life which exists in this small finger of the sea.

Shark River Inlet, separates the towns of Avon and Belmar on the central New Jersey shore. It lies about one hour's drive from New York City. The uninformed diver might ignore this unobtrusive body of water but those divers who live close to the inlet know better than to overlook the excellent and convenient diving Shark River has to offer. To many, a dip in the river is a most rewarding way to cap off a day of hot summer work.

The local laws require divers to use the inlet between 5 pm and 8 am during the warm summer months. The restriction results in a great windfall for any diver seeking fluke, blackfish, lobster or just the dark serenity of a pleasant night dive. It is only at night that the carpet of huge sea anemones (*Metridium*) stretch their golden forms to the utmost, and spread their soft white plummage to feed. Only at night, do the multicolored star corals extend polyps from their protective skeletons. It is the darkness that intensifies the brilliant contrast of yellow and orange that abounds in the sponges which encrust the rocks. And, of course, bug hunters enjoy the nighttime, because the security of night's blanket lures lobsters out of their caves to forage for a meal along the bottom. All of this and more awaits a diver on any summer night in Shark River Inlet.

The inlet is not only beautiful, but it is one of the easiest, most relaxing dives one will ever experience. Many dive schools use the inlet for check-out dives and a first night dive because of the easy entry and exit, and the relatively shallow depths. The major precaution which must be taken when diving the inlet is timing the coming of slack tide. Because of the swiftness of the tidal currents and the suddenness of tidal changes, a diver must hit the inlet exactly at slack tide. Experience has taught most local divers that one-half hour before the calculated high tide, the currents of the river slow. For the longest dive possible, divers enter the water immediately, and can usually remain underwater for up to 90 minutes. It is most important for a diver to be

aware of both time and current speed while underwater, because without notice the water's pace can pick up several knots and sweep a diver out to the open ocean.

Diving Shark River is reserved for high tide, when the clean ocean waters wash inland, bringing oxygen, nutrients, and increased visibility. To dive the inlet all one need do is park on Ocean Avenue, suit up, and drop off into an exquisite U/W garden.

Once underwater it is best to stay close to the rocks for safety and enjoyment. Most of the animal life encrusts the rocks or uses them for protection. Also, a trip into the channel could result in a diver surfacing in the middle of heavy boat traffic. Several careless divers have been killed in the inlet because they ventured too far from the rocks and surfaced under a passing boat. A divers flag is required and summons are handed out for diving without one. Diving in the channel is prohibited even with a flag.

Despite these rules, a diver can have a rewarding experience by sticking near the sea wall and closely studying the marine life of the inlet. If you follow the contour of the rocks, you will come across one of the many caves which dot the seawall. Some go back into the rocks eight to ten feet, with walls that are alive with golden anemones and coral.

A patient diver will also find one of the inlet's most popular inhabitants, the lobster, in crevices and on ledges inside the caves. Lobsters, in Shark River, grow to about two pounds (though I am convinced that deep within the breakwater there live a few cagey giants who have managed to elude divers and traps alike).

Another good-to-eat crustacean is the blue crab, which makes seasonal appearances in the inlet. Blue crabs are noted for their gracefully formed green shell and the silver and blue which intermingle on each appendage. Sea robins, seahorses, eels and rockfish are also common residents of Shark River.

A pleasant hobby for the regular inlet diver is plotting the passing of the seasons by observing the fauna of the river. From late April to late May, hydrozoans are found in great abundance. Anemones are not as numerous and are rarely opened to their full size. The hydrozoans start to die off early in June, and many polyps are consumed by small brine shrimp

MICRONESIA

Bay Travel Diving Adventures announces our return to Micronesia. Our dive tour to the Truk Lagoon in 1969 opened Micronesia to the Sport Diver.

Now, for 1979, we offer 3 escorted 19 day trips featuring: Truk, Palau, and Ponape.

We're also offering weekly independent dive tours to Truk, Palau, Saipan, and Ponape. Choose one

or combine all fantastic dive destinations to fit your own independent needs.
Departure Dates: July 10, Sept. 11, Nov. 6, 1979

BAY TRAVEL

2435 East Coast Highway
Corona Del Mar, CA 92625
(714) 675-4320



DON'T BE AFRAID OF THE DARK

... you can use it to create eerie multiples



Find out how in the June
skin diver



For information on diving in the Best of the Bahamas, communicate:
Omorka Ltd. • PO Box 76721 • Atlanta, GA 30328 • 404/428-1588

Individual ☐ Diver ☐ Diving Retailer
☐ Non Diver ☐ Travel Agent

Name _____ Phone # _____

Company Name _____

Address _____

City _____ State _____ Zip _____

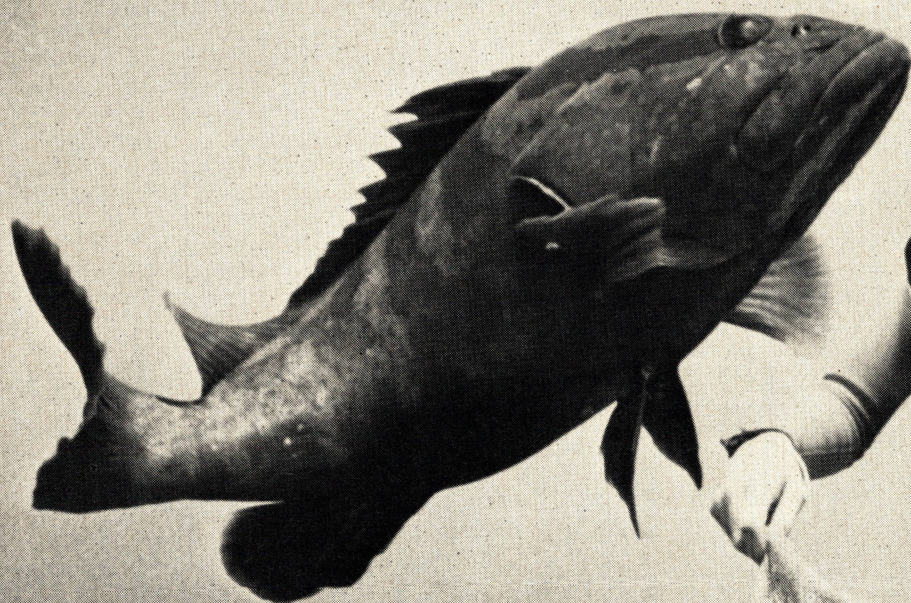
SHARK RIVER INLET

which have hatched in late spring. Fish traffic increases and larger flounder, bass, and blackfish are more prevalent. As the water warms, new coral colonies appear and anemones split and split again as part of their reproductive process. Summer truly comes to Shark River Inlet almost simultaneously with the solstice. In late June, small butterflyfish — some the size of a dime — can be seen swimming close to the rocks. These tiny tropical beauties make an incredible journey from the warm waters of the tropics up the Gulf Stream to find a final home in Shark River Inlet. Bright red soldierfish share the northerly migration and also find refuge in the inlet. At first, many divers are unaware of these small tropical fish because they are difficult to distinguish. But a knowledgeable guide can point out a butterflyfish in every corner and on every grassy knoll. The seasons now belong to the butterflyfish, whose growth measures the passage of summer and the coming of fall. During this period, lobsters hatch and seek refuge under small rocks and outcroppings. Baby crabs are found everywhere, in, on and under the rocks. Some rookeries are so crowded that crabs are killed by the sheer numbers of their brothers and sisters. Horseshoe crabs traverse the bottom locked in a lover's embrace that hasn't changed in millions of years. Pipefish lay eggs among the mussels and swim away never to know their young. Small bluefish, called snappers, invade the inlet by the thousands, and are caught by those fishing off the wall.

By September, the once small butterflyfish have grown to four or five inches and now stand out clearly from their surroundings. They will end their days in the inlet, because the chill of winter will soon capture the currents and the frail butterflyfish cannot survive the change. Those which are caught for aquariums have a chance to make it, but without a return current south, those left in the inlet are trapped by winter and eventually die.

Shark River is very easy to reach from north Jersey, New York, and Philadelphia. Divers should get on the Garden State Parkway, and take exit 100B which puts you on Highway 33 east. Follow Highway 33 until the junction with Highway 71, turn right, and then make any of the next left turns to take you out to Ocean Avenue. From here, just travel south until you find Shark River Inlet. Parking is allowed right on the street,

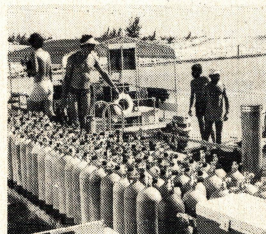
Have the time of your life on your next diving vacation...



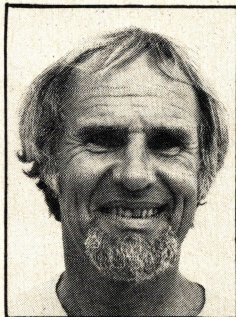
...and take home the photos
to prove it!!

INTRODUCING...THE FINEST U/W PHOTO CENTER EVER BUILT!

- Quality color film processing done daily on the premises
- Introductory 1-day and 2-day photo courses conducted every week
- Spacious air conditioned facility with classroom and darkroom lab
- U/W camera and strobe rentals



- Our resident pro is the world renowned U/W photographer Dave Woodward



SAN SALVADOR in the Sunny Southern Bahamas

Contact our stateside rep:
Columbus Landings Service Co., Inc.
P.O. Box 14394
Ft. Lauderdale, Fla. 33302
U.S. toll free (800) 327-9473
Canada or Fla. (305) 566-7441

TELL ME MORE . . .

- ☐ Send me free brochures and prices on your regular vacation dive package.
- ☐ Send me free brochures and prices on your U/W photo services.

NAME _____

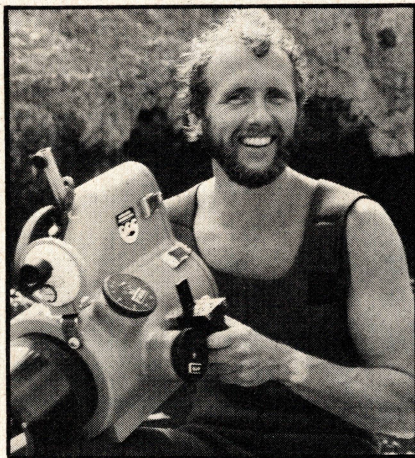
ADDRESS _____

CITY _____ ST. _____ ZIP _____

AREA CODE _____ TEL. _____

RED SEA DIVING - ISRAEL

FOLLOW THE STAR TO THE DIVER'S DREAMLAND



★ JACK MCKENNEY ★

Film maker of "God's Other World — The Red Sea" and Adventure Editor of Skin Diver Magazine. Jack will lead our annual underwater photographer's expedition to the world's greatest diving paradise: the Red Sea. The expedition will explore the fabulous Straits of Tiran and Ras Muhammed. Diving services are provided by the famous RED SEA DIVERS, Israel's largest diving organization. Departure date: Sept. 16, 1979.

HURRY AND SIGN UP TODAY! LIMITED SPACE AVAILABLE

For reservations and information, send your coupon today.

COMPARE AND SAVE: WE OFFER COMPLETE SERVICE WITH EVERY POSEIDON VENTURES TOUR.

- All U.S. and European diving equipment
- All diving from new, specially designed boats with trained dive guides.
- Independent tours can be arranged.
- Monthly group departures arranged from anywhere in the U.S.
- Guided tour of Jerusalem
- Top quality modern hotel accommodations

POSEIDON VENTURES

359 San Miguel Dr., Newport Beach, CA 92660
Phone: (714) 644-5373 NY (212) 687-7250

Please send me information about:

- ☐ Jack McKenney's expeditions
☐ Other Red Sea Tours

NAME

ADDRESS

CITY

STATE

ZIP

PHONE

Poseidon Ventures DIVE TOURS

Scuba ADVENTURES

Dive the magnificent Andros Barrier Reef from Small Hope Bay Lodge, Andros, Bahama. Also complete dive packages throughout the Bahamas and Caribbean.

Weekly group rates available.

Commissions to Dive Centers and Travel Agencies.

Check with your local authorized Scuba Tours

International Dealer or contact:

Scuba Tours International



Lincoln Center 5401 W. Kennedy Blvd. Suite 131
Tampa, FL 33609 PH 813 879-4255

Island Dive Tours

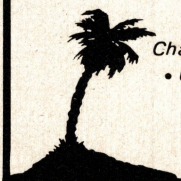
BIMINI

\$195.00

3 days / 2 nights

from Fort Lauderdale

Bahamas Island Hopping
from \$295.00



Group Rates • Private
Charters • Scuba Instructions
• Underwater Photography

ISLAND DIVE TOURS
P.O. Box 1060
Pompano Beach, Florida 33061
Phone: (305) 971-0382

SHARK RIVER INLET

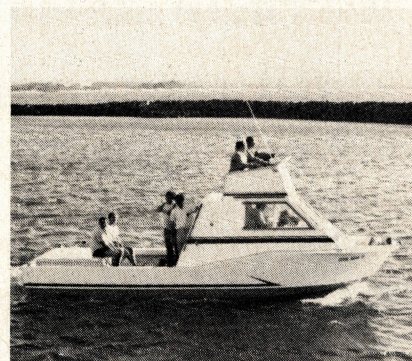
often 50 yards from where you will drop into the water. If you need air, Professional Divers is located on Highway 35 in Neptune, and from there it is only five minutes to the inlet. During the summer the Professional Divers shop is open until 9:00 on weekdays, 6:00 on Saturdays, and several hours on Sunday, so a diver can always get an air fill before a dip in the inlet. A stop at Pro Divers will also provide information on general conditions in the area, and may spark a group of crazy divers to load up their gear, on the spur of the moment, and lead you to the inlet. Either way, it is a good way to learn timely information about the inlet, including the exact time of the tide and previous visibility.

Manasquan Inlet is located about 12 miles south of Shark River, and also supports the same variety of sea life which has been described in this article. High tide occurs at Manasquan Inlet about eight minutes earlier than at Shark River. Many of the rules which apply to Shark River diving are also enforced in Manasquan Inlet.

So, the next time you are planning to spend a day at the Jersey shore, or you find yourself looking to get wet quickly, easily and enjoyably, remember Shark River Inlet. With a little concentration and patience, it can turn into an unforgettable diving experience, which you will want to repeat as often as possible.

MAUI DIVE BOAT

Kihei Sea Sports on the Hawaiian Island of Maui is now offering scuba diving and snorkeling trips aboard their new dive boat *Novia del Mar*. The boat, a 27 foot Radon, offers dive tours



to the best spots in the Maui area as well as tours to the neighboring islands of Lanai, Molokini, and Kahoolawe.

For information, contact: Kihei Sea Sports, Box E, Kihei, Maui, HI 96753.

CATALINA'S CASINO POINT

By Merna Dawson/Tetsuo Uno

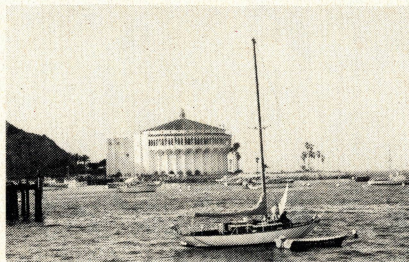
Santa Catalina Island, one of California's "Crown Jewels," lies 26 miles off the mainland. It is easily accessible by ferry from Long Beach or San Pedro. The island boasts many attractions, not the least of which is the underwater park off Casino Point in Avalon Bay.

After a two-hour ferry trip from the mainland and a short taxi ride, divers may snorkel straight out from the Casino. A full wetsuit is necessary and cushioned booties helpful as the entry is over rocks into a bay. Tanks may be transported on the ferry or rented on the island at Catalina Divers Supply.

Once in the water, it's just a short swim to the buoy with a diver down flag painted on its side. On most days, visibility is excellent and a cabin cruiser, one of the three wrecks in the park, may be seen on the bottom of the buoy anchor line, in about 60 feet of water. Slightly deeper and west lies a light aircraft in 65 to 72 feet of water, depending on the tide. The third, and shallowest wreck is an automobile — in about 20 feet of water. All three wrecks form excellent arti-

cial reefs, attracting literally hundreds of fishes common to Southern California waters. Since the area is a game preserve, there is no spearfishing or shellfish hunting. The site is excellent for photography and sightseeing.

The temperature of the water surrounding the deeper wrecks is usually around 60-66°F depending on the season. The surface water is usually



calm, although, by the deeper wrecks, there may be moderate currents and closer to shore, by the shallower wreck, there may be moderate surge. The terrain is sandy near the deep wrecks but rocky closer to shore; kelp also proliferates here. Caution is advised as the rocks and growth make entry and exit slippery. There is little or no surf except after storms, which rarely occur. During a period of 16 months, the authors made eight dives on these wrecks, encompassing all seasons. The area was never undive-

able, although the visibility did vary somewhat, appearing to be best during the winter months. The topside island climate is always mild, with a light jacket usually sufficient no matter what the season.

The main attraction of the small underwater park is its appropriateness for underwater photography. The shallow water offers a lush kelp forest, with large boulders forming a base for colorful gorgonians and crevices for lobster, abalone, and an occasional horn shark. The area abounds with garibaldi, chromis, kelp bass, sculpin, sheephead, senorita, and kelp fish. Starfish, sea cucumbers, and colorful tube anemones litter the floor.

Marine photographers can obtain good close-ups of bluebanded gobies, solitary coral, corynactis, tube worms, and nudibranchs. In the deeper waters, the visibility is sufficient for scenic and diver photography, especially effective with the wrecks as a background.

This lovely underwater park, once despoiled by divers unaware of Nature's delicate ecological balance, is now being restored to its former beauty — thanks to the efforts of divers, conservationists, and park and beach officials. "Look, don't disturb," is the watchword here. With the cooperation of future divers, this park will remain a diver's paradise.



Below the surface of paradise lies a battlefield.

The Pacific is at peace now. But below the surface of its tropical waters lie the battlefields of WWII.

Sunken warships. Planes. Torpedos. Explore them all on Scubamerica Truk tours.

In Hawaii, we invite you to another world: the brilliant coasts off Maui and Kona. Or try our live-aboard boat tour, the "Spirit of Adventure."

MAUI Inter-Island Diving Adventure 7 days/6 nights....\$525* per person

KONA COAST Diving Adventure 7 days/6 nights....\$525* per person

SPIRIT OF ADVENTURE Holiday...from \$179* for 2 days to \$595* for 7 days, per person

TRUK LAGOON Gold Tour 14 days.....\$825* per person

PALAU & TRUK LAGOON Blue Tour 16 days.....\$860* per person

DELUXE TRUK LAGOON Diving Holiday 11 days.....\$800* per person

*Based on double occupancy. Airfare not included.

For reservations call Continental, your Travel Agent or dive shop. Send coupon below to receive a colorful brochure detailing these six exciting tours.

Scubamerica Tours, Box 9000, Van Nuys, CA 91406 SD 5-79

Send brochures on diving tours of ☐ Maui ☐ Kona ☐ Spirit of Adventure
☐ Truk ☐ Palau and Truk ☐ Deluxe Truk.

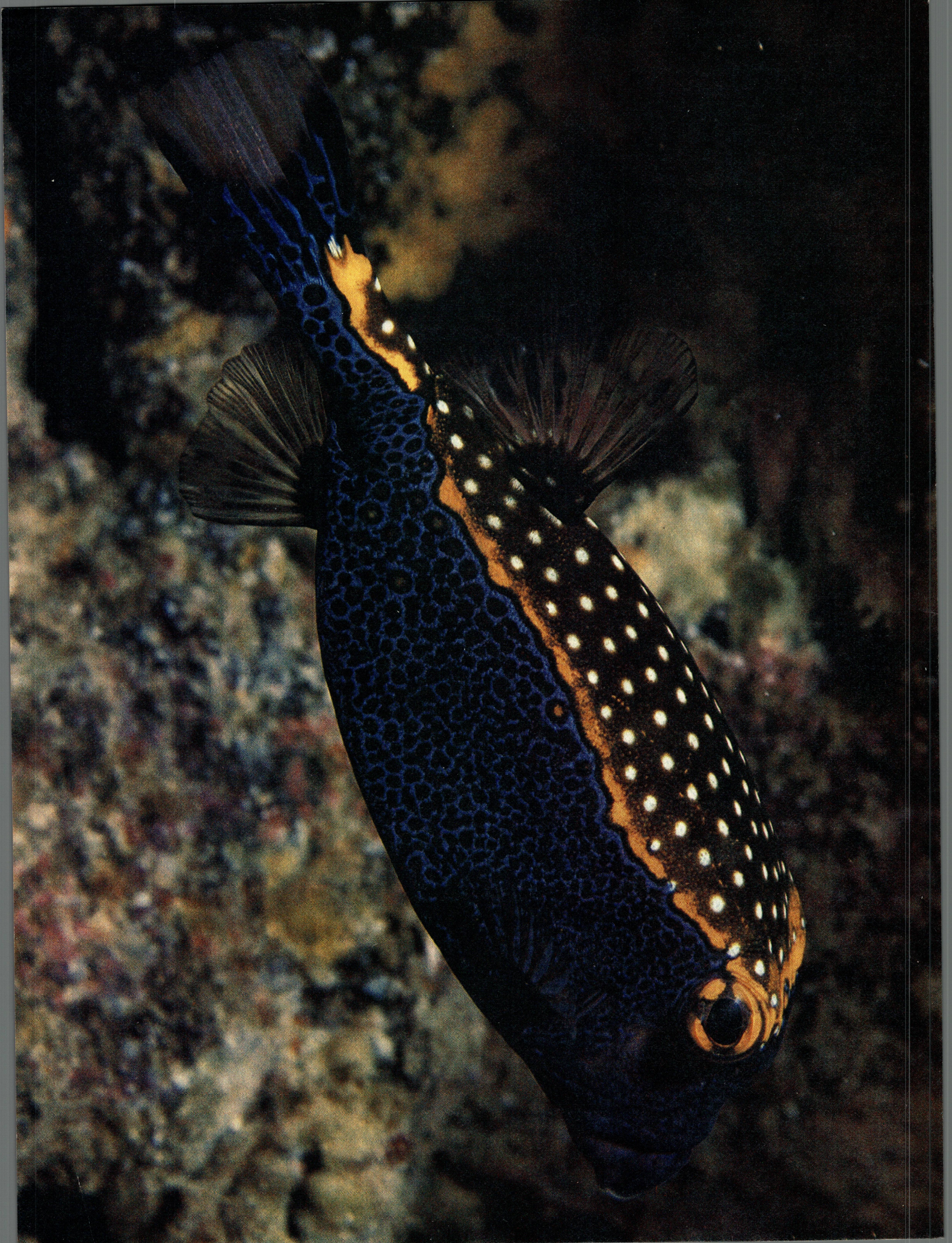
Name _____

Address _____

City _____ State _____ Zip _____

My Travel Agent _____

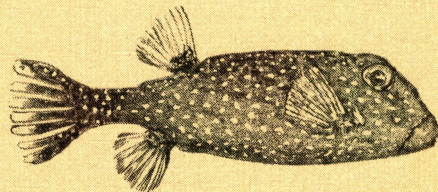
 **CONTINENTAL/AIR MICRONESIA** 



The Spotted Boxfish

(*Ostracion meleagris*)

The extremes to which Nature will go to protect her own are well exemplified in the fishes of the sea. Many species have excellent, clever, built-in defenses, ranging from camouflage to sharp spines, all of which serve to shield them from predation. Boxfishes are a wonderful example of such built-in defense mechanisms. They have hard, box-like shells, which discourage predators from chomping down on them. Also, when excited, boxfishes can secrete a poison strong enough to kill other fish. □ *Ostracion meleagris* is a spotted boxfish from Hawaii, a bright little marine oddity of the Polynesian reef. The large males are much more brightly colored than the females, having brilliant yellows and blues, with white spots peppering their backs. The immature fishes and the females are a uniform dark, with white spots all over. The fish grows to a maximum of five or six inches. The geometrically shaped pattern on the lower part of the fish is actually calcified bony plates which make up the "box" of the fish. If you look closely at the illustration you can see where the box starts and ends. The shell-like armor stops just at the base of the tail and at the nose. There are little holes through which the fins protrude. □ The scientific name of the boxfish family is Ostraciontidae; the word comes from the Greek *ostracum*, which means "shell." The species name *meleagris* is from the Greek name for a guinea fowl, a bird that has dark feathers speckled with white. In Hawaii, the fish is called *pahu*, which means "box." □ Boxfishes are quite comical to watch underwater.



Because of their heavy armor and weak fins they are poor swimmers, all movement confined to the sculling action of the fins and tail. If a diver approaches a boxfish it will frantically paddle with its pectoral fins, using its tail only as a rudder unless it is really alarmed, in which case it will dart to a protective ledge or crack in the reef with a swift kick of its tail. While it is escaping, it will rock back and forth to keep an eye on its pursuer. This type of swimming is called "ostraciiform movement" by ichthyologists. □ Because of its poor swimming abilities, the boxfish will stay close to the bottom or

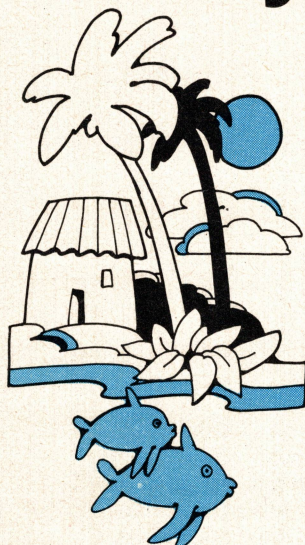
near a reef. It eats plants and invertebrate animals such as tunicates and worms. The whole procedure of eating is interesting: the boxfish can jet water from its tiny mouth to uncover the burrowing organisms. The fish is most often found in shallow waters; the older and larger species will venture over open sea bottoms of sand

and grass while the younger ones stay closer to the reefs. *Ostracion meleagris* is the most common boxfish in Hawaii. According to Dr. Herbert Axelrod, it also ranges through the Indian Ocean, the Indo-Australian Archipelago, the Philippines, Melanesia, Micronesia and Polynesia. The fish is often collected by aquarists, but there are hazards in this: the boxfish emits a toxic mucus when excited, and this can kill every other fish in the tank including the boxfish. Professional collectors normally take special precautions by exposing the boxfish to stress so that it will secrete the slime. This is then rinsed off before the fish is placed in the collecting bucket. >»

Photo By Chris Newbert - Text By Hillary Hauser

The photo was taken in 40 feet of water off Kona, Hawaii. Newbert used a Canon F-1 with a 50mm lens in an Ikelite housing with a flat port and an Oceanic/Farallon 2003 strobe. ASA 25 shot at f16, 1/60 second.

Divers Directory



Advertising rate is \$70 for three consecutive ads, \$120 for six consecutive ads, \$185 for a full year. **PAYMENT MUST ACCOMPANY COPY.** Send all material to Diver's Directory, c/o Skin Diver, 8490 Sunset Boulevard, Los Angeles, California 90069.

ALASKA

ANCHORAGE DIVE CENTER (907) 277-DIVE
607 I St., Anchorage, Alaska 99501
PADI-NAUI, NAUTIC Basic & Advanced Training
Air, Repair, CHARTERS & Equipment Sales

ARIZONA

AQUA SPORTS (602) 955-4120
4230 E. Indian School Rd., Phoenix, AZ 85018
Scubapro Dealer & Full Svs. Since 1955—Same Owners
Boris & Rose. NASDS-NAUI-PADI-Instr.-U/W Photo-Trips

ARIZONA DIVERS SUPPLY, INC. 602-265-9325
1811 East Indian School Road, Phoenix, Arizona 85016
Rentals - Dive Trips - Instruction - Sales
Repair - 3500 PSI Air Station

ARKANSAS

JORDAN DIVING SERVICE (501) 499-7348
Jordan Landing, Lake Norfork, Arkansas 72548
Dive Boats, Rentals, Air/3500, Wreck Dive, 30 Ft. Visib.
Marina, Natural Sand Beach, Camping, Scenic Ozarks

CALIFORNIA

CALIFORNIA SKINDIVING SCHOOLS
9762 Magnolia Ave., Riverside 714/689-2422
1173 N. "E" St., San Bernardino 714/885-1416
EQUIP. SALES, RENTALS, REPAIRS, AIR

CALIFORNIA SKINDIVING SCHOOLS
1083 N. Harbor, Anaheim 714/991-DIVE
4420 Holt Blvd., Montclair 714/621-4171
COMPLETE INSTRUCTION IN OUR OWN POOLS

ARCADIA POOL & DIVE (213) 447-8181
21 W. Duarte Road, Arcadia, Calif. 91006
Sales, Rentals, Repairs
Instruction, Charters, NASDS

BAMBOO REEF ENTERPRISES
1111 University Ave., Berkeley, Calif. 415/548-7560
584 - 4th Street, San Francisco, Calif. 415/362-6694
1959 W. San Carlos, San Jose, Calif. 408/275-1696

PROFESSIONAL S.C.U.B.A. REPAIR 769-1484
5725 Cahuenga, North Hollywood, Calif. 91601
Professional Repair is Our Only Business
Servicing All Makes & Models of Equipment Since 1961

SCUBA SCHOOLS ANAHEIM/LONG BEACH/OCEANSIDE
1640 W. Lincoln, Anaheim CA 956-5540
4740 P.C.H., Long Beach CA 433-6765
129 S. Hill, Oceanside, CA 722-2455

LAGUNA SEASPORTS
925 N. Coast Highway, Laguna Beach (714) 494-6965
1951 Newport Blvd., Costa Mesa (714) 645-5820
NAUI - PADI - RENTALS - AIR

LAGUNA SEASPORTS*
7066 Van Nuys Blvd., Van Nuys (213) 787-7066
18503 Hawthorne Blvd., Torrance (213) 542-8609
3335 Motor Ave., West Los Angeles (213) 559-7771

DIVING LOCKER 1020 Grand, San Diego 714/272-1120
155 So. Highway 101, Solana Beach 714/755-6822
348 E. Grand, Escondido 714/746-8980
1148 Delevan Dr., San Diego 714/231-8331

SEA-TO-SEA SCUBA SCHOOL (714) 825-2502
10950 S. Mt. Vernon, Colton, Ca. 92324
NAUI, PADI, YMCA Instruction - all levels
Sales-Repair-Rental-Travel Pkgs. - 4000 PSI Air Station

WALLIN DIVE STORE (415) 592-7606
1656/58 El Camino Real, San Carlos, Ca 94070
U/W PHOTO SPECIALISTS - AIR - INSTRUCTION
Rentals-Repairs-Travel-Marine Art-Books-Jewelry

CATALINA DIVERS SUPPLY
Avalon, Catalina Island 90704 213/510-0330
Rentals - Sales - Air - 2 Locations
Pleasure Pier & Avalon Underwater Park

SPORT CHALET DIVERS
920 Foothill, La Canada, Ca. (213) 790-2717
SALES - RENTALS - REPAIRS - CHARTERS
3300 PSI, L.A. COUNTY-NAUI INSTRUCTION

NEW ENGLAND DIVERS — LOS ANGELES
11830 W. Pico Blvd., West Los Angeles (213) 477-5021
Take Bundy off Santa Monica Freeway to Pico Blvd. Open
7 days. Mon-Sat. (10 am to 8 pm) Sun. (9 am to 5:30 pm)

NEW ENGLAND DIVERS — SAN DIEGO
3860 Rosecrans St., San Diego (714) 298-0531
8363 Center Dr., La Mesa (714) 462-4570
Open 7 Days. Weekly Boat Trips.

OCEAN SPORTS, LTD. 714/840-4840
16446 Bolsa Chica, Huntington Beach, CA
Skin & Scuba Gear - Sales - rentals - repairs - air
NAUI-PADI Certified Instruction - dive trips - surfboards

SEA VENTURES DIVE BOAT
2724 Wendy Place, Port Hueneme, CA 93041
(805) 486-0403 (24 hrs.)
CHANNEL ISLANDS TRIPS

COLORADO

COLORADO SCUBA SCHOOLS
32nd Quebec St., Denver Airport (674-4449)
Audio-Visual Course, Large Pool and Food Facilities
Equipment - Sales - Service - Jet Trips - PADI INSTRUCTION

CONNECTICUT

ORBIT MARINE SPORTS CENTER (203) 333-DIVE
3273 Fairfield Ave., Bridgeport, Conn. 06605
Tel. (203) 333-DIVE - Sales - Rentals - Air - Dive Trips
Hydro - NAUI Instruction - Visual Inspection. Open All Year!

INNERSPACE DIVING SUPPLY CO., INC.
598 Center St., Manchester, CT (203) 646-2352
Air - Sales - Rentals - Repairs - Hydro - Planned Dives
Certified Instruction in all levels-NAUI-PADI-YMCA

THE DIVING BELL (203) 775-3573
Route 7, Brookfield Plaza, Brookfield, CT
Full Service Pro Dive Shop - P.A.D.I. Instruction
DIVE LAKE CANDLEWOOD / Weekly Boat Trips

UNDERWATER SWIMMERS, INC.
526 Main Street, West Haven, Connecticut (203) 932-0258
Scuba Lessons, Equipment Supplies, Air, Repairs,
Commercial Work, Rentals, Hydro Testing

JACK'S DIVE CENTER
Rt. 10, Plainville, Conn. 06062 (203) 747-3170
Sales - Service - Instructions - Rentals - Trips
5,000 PSI Air - AGA Divator - HOME OF FREE DIVES

A-1 DIVING CENTER 755-9772 or 756-8451
863 Meriden Road, Rt. 66, Waterbury, Conn. 06705
Hydrotests - Repair - Rentals
Certified NAUI & YMCA Instruction-Wholesale & Retail

TRI-CITY DIVERS 872-6547
Route 30, Post Rd. Plaza, Vernon, Ct - Exit 96 off I-86
Sales - Rentals - Repairs - Air - Instruction - Trips
NAUI - PADI - Noon to 8 Daily, Sat. 10 to 5:30

SKI & SCUBA SHOPPE (203) 377-6969
Foot of Broad St., Stfd. Marina, Stratford, CT
Professional Instruction - All Levels
Full Service, All Year, Dive Trips To Everywhere

FLORIDA

UNDERSEAS, INC. (305) 872-2700
Box 319, U.S. 1, Big Pine Key, Florida 33043
Equipment - Air - Rentals - Repair - Reef Charters - Shelling
Guides - Photo - Spearfishing - Tropical Fish Collecting

MILEO PHOTO SUPPLY, INC.
2105 Ponce de Leon Blvd., Coral Gables, Florida
Toll-Free In Florida - 1-800-432-2384; Miami 446-0855
Underwater Photo Equipment and Supplies

PLANTATION INN MARINA 904-795-5797
Box 1093, Crystal River, Fla. 32629 - Rental-Boats-Canoes-
Scuba-Night Diving-Package Deals-Private Manatee Obser. Deck
& Air Sta. @ Divers Giant Spring, Golf/Tennis-100 Rm. Hotel

HERB'S DIVE SHOP 253-7221
2434 S. Atlantic Avenue (AIA), Daytona Beach, Florida 32018.
Full Diver Service — Group or Private Classes
Trips: Reef - Springs - Bahamas - Reef - Springs - Bahamas

SEA DWELLERS DIVE CENTER
At Port Largo Airport
Dive charters - Air - Rentals - Instruction
P.O. Box 1796, Key Largo, Fla. 33037 Ph. 305/451-3640

HALL'S DIVING CTR & RESORT (305) 743-WISH or 743-5929
1688 Overseas Hwy., Marathon, Florida Keys 33050
Certified Instruction — Reef Trips — Rentals
5000 psi air — Repair — 9 to 7 — 7 Days a Week

REEF RAIDERS DIVE SHOP 305-294-0660
U.S. Hwy #1, Stock Island, Key West, Fla. 305-294-3635
Two Reef Trips Daily - Wreck and Night Diving
Air-5000 PSI. Rntl and Sales on all diving equip.

DIVING TRIP, INC., FT. LAUDERDALE
4565 SW 37 Avenue, Ft. Lauderdale, Florida 305/966-7775
Dive Beautiful Coral Reefs and Wrecks
Aboard the "SCUBA TOO" Captain Joe Schirck

LAUDERDALE DIVER Phone: (305) 46 SCUBA
1334 S.E. 17th St., Fort Lauderdale "On the Causeway"
On-site pool - complete master diver program. PADI 5 star
Instruction-Sales-Service-Air-Photo-Trips. Widest Selection

KEY WEST PRO DIVE SHOP, INC. 305/296-3823
1605 North Roosevelt Blvd., Key West, FL 33040
Air, Sales, Repairs, Rentals, Instruction
Daily Reef Trips - Charters to Dry Tortugas

SEA TRAIL MOTEL - REEF TRIPS (305) 852-8001
Rt. 1, Box 91, Key Largo, FL 33037 - Mile Marker 99-98
T.V., Air Cond., and Refrig. - Budget Rates
Night/Wreck Dives - Snorkeling - Inst. - 6 Passenger

CAPT. BOB KLEIN'S HOLIDAY INN SCUBA SHOP
Key Largo, Florida 33037 305-451-DIVE
Guided Reef Trips/Cay Sal Blue Hole Dives
Go First Class aboard the 50' "Plus Ultra"

UNDERWATER DESIGNERS COMPANY
4591 St. Johns Ave., Jacksonville, Florida (384-3655)
13637 Beach Blvd., Jacksonville, Florida (246-6729)
Sales Representative - Rentals - Air - Instruction - PADI College

DOLPHIN DIVE CENTER
US 1, Marker 103, Box 1936, Key Largo, Fla. 305/451-1381
Complete dive center, PADI, group-club charters.
Daily reef trips, spearfish, tropicals, photo

HARRY KEITZ'S AMERICAN DIVING HEADQUARTERS
Rt. 1, Box 2748, Key Largo, FL 33037 (305) 451-0037
Daily Dive Trips to Pennekamp Park, Group Rates,
Motel Reservations, Photo Rentals, Complete Pro Store

ROCK REEF RESORT Phone 305-852-2401
Box 73, Key Largo, Florida 33037
5 minutes to Coral Reef State Park. Swimming, Skiing, etc.
On water. Family units A/C, color TV.

ANGLER'S DIVE SHOP (305) 294-4248
US 1, Stock IS., Key West, Fla. 33040
Dive Boat Rentals, Family Reef Trips, Air, Rentals,
Hydro. From the Island you can Drive to and Dive.

AQUA PEER, Divers Serving Divers, Since 1957.
We rent Boats & Diving Equip., have Sales & Air & Instruct. Send
\$1.00 for Map, Decal & Info to AQUA PEER, 267 N.W. 3rd St.,
Crystal River, FL 32629 (904) 795-2776.

CUTLER RIDGE DIVING CENTER 305/251-2710
20850 So. Dixie Hwy. (US 1), So. Miami, Florida 33189
Full PRO Shop Sales & Services - Open 6 days
Air - NAUI Instruction - Reef Trips

FRED & CINDY'S ATLANTIS MARINA (305) 664-4318
Florida Keys, Box 708, Long Key, Florida 33001
Boat Rentals to the Reef - Camping - Motels
Air - Rentals - Trips - Complete Dive Service

DIVING SITE (305) 289-1021
12565 Overseas Hwy., Marathon, Fla. 33050
40' Dive Boat, Charters, Sales, Repair
Photography, Hydro Test, PADI Air \$1.00

NEW ENGLAND DIVERS
2945 NE 2nd Ave., Miami, Fla. 305-573-4600
9820 S. Dixie Hwy., Kendall 305-667-4622
Sales - Rental - Classes - Instruction

FRIENDSHIP INN — KEY LARGO near Pennekamp Park
Box 456, Toll free except Florida: 800-327-8346
Key Largo, Fla. 33037 (305) 451-1616
Miami (305) 248-1644. Clubs & Groups.

BILL CRAWFORD'S TROPIC ISLE DIVE SHOP
P.O. Box 755, Key Largo, FL 33037 (305) 451-1063
Reef Trips — Photo & Scuba Rentals
NIKONOS REPAIR CENTER

POWER DIVE — FLY UNDERWATER — CRUISE
Scuba Tow Plans \$8 — West Sub Plans \$15 — Parts
Tow & Sub Building Handbood + 3 Tow Plans \$10
SEATECH CORP., 985 N.W. 95 St., Miami, FL 33150

OCEAN DIVERS INC. — Beautiful Pennekamp Park
Reef Ecology Dive
Group & Instructor Packages
Box 1113-A, Key Largo, FL 33037 PH: 305/451-0286

DIVER'S WORLD (305) 655-3045
601 So. Olive, West Palm Beach, FL 33401
Wreck, Night & Reef diving - Lots of Fish
Free Air and Dives - Treasure Hunts

DIVERS WORLD UNDERSEA CENTER 305/844-1510
2525 Lake Drive, Riviera Beach, Florida 33404
Daily Dive Trips, Full Rental, & Sales Shop, Accom.,
Restaurant, Resort Course, 3 Boats, Spear Fishing.

SUNSHINE KEY AQUA CENTER 305/872-2400
Rt. 1, Box 790-L, Sunshine Key, Fla. 33043
Dive-fish-camp-trailers-rentals & 3500 air-reef
trips on 65' & 24' boats to LOOE KEY/grp. rates.

DOLPHIN DIVE CENTER 24 Hour Hot Line
3400 N. Overseas Hwy., Key Largo, FL 33037 305/451-1381
Instruction - Daily Pennekamp Reef Trips
Ecology and Island Charters—Cottages and Dorms

HOLIDAY ISLE DIVE & SWIM CENTER
Box 482, Islamorada, Florida 305/664-4145
*Ask about our 1/2 day dive trips
and our very complete dive shop

SEAPRO SCUBA CENTER 305-844-DIVE
3619 Broadway, Riviera Beach, FL 33404
Instruction, Air, Repairs, Rental, Sales
DIVE PALM BEACH — 37' Custom Dive Boat

DIVERS' WORLD OF KEY LARGO 305/852-5498
P.O. Box 1663, Key Largo, Fla. 33037
On the Atlantic at Mandalay Marina - US 1 Marker 97.5
Reef Trips - Air - Instruction - Sales - Rentals

KEY WESTER INN - LUSH TROPICAL RESORT - ON THE OCEAN
Dive Shop w/daily reef trips, Tennis, Free Bikes, Free
Island Tours, Pool, Sauna, Rest., Lounge & Disco - Low
Rates-\$22 Daily. Key Wester Inn, Key West, Fla. 305/296-5671

GINNIE SPRINGS, INC. (904) 454-2202
Rt. 1, Box 153, High Springs, Florida 32643
72" Clear Springs, Full Service Dive Shop
5000 PSI Air Station, Canoes, Camp Grounds

THE REEF SHOP DIVE CENTER & CHARTER SERVICE
Rt. #1, Box 7 S.D.D., Islamorada (Fla. Keys) — Equipment
Rentals-Sales-Repair-Air-Day/Night Reef Trips
Dive Boats-Club, Group Packages-FSDA & PADI Instructions

NORINE ROUSE SCUBA CLUB of the PALM BEACHES
4708 N. Dixie Highway 305/844-2466
West Palm Beach, Florida 33407
A membership club for divers only

SUNDIVERS STATION (305)451-0676
Rt. 3, Box 289-A, Key Largo, FL 33037
Dive Pennekamp-Reefs-Wrecks-Photography
Instr.-Guides-Rentals-Dockside Air-Complete Rentals

Jim Hollis' SCUBA WORLD 305/273-3373
5107 E. Colonial Dr., (Across from Hwy. Patrol Station)
Sales, Service, Rentals, Tours
Classes - PADI, FSDA, YMCA

SEA CENTER DIVING HEADQUARTERS
Mile 30 - Big Pine Key - Florida Keys
Air - Rentals - Reef Trips - Instruction
Sales, All Equip. - Box 515 - 872-2243

PENNEKAMP PARK (Fly or Drive) DIVE/PARTY PACKAGE
Trips yr. round from SARASOTA or MEET US in Key Largo.
(Info/Resv Svc.) 24 hr. (813/351-1623) or write to:
F.O.S. & T.CO. P.O. Box 13157 Sarasota, FL 33580

DIVE BOAT BOTTOMS UP (305) 737-7240
Gulfstream Marina, 2280 N. Federal Hwy., Boynton Beach, FL
USCG Approved — Licensed Captain & Crew
Daily Reef Trips — Full Service Pro Shop

PROFESSIONAL DIVING SCHOOLS OF FLORIDA, INC.
210 & 1540 N. Federal Hwy., Deerfield & Pompano Beach, Fl.
Bahia Mar Hotel & Yachting Center (AIA) Ft. Lauderdale, Fl.
Local Reef Trips—Daily (305) 428-0560/785-0780/761-3413

Coral Sands of Key West (305) 294-7896
Reef trips-wrecks-UW photography on 32' dive boat
Snorkeling YMCA/PADI Scuba Instruction
Coral Sands, P.O. Box 1213, Key West, FL 33040

DIVER'S DEN SOUTH
12614 N. Kendall Dr., Miami, FL 33186 305/595-2010
P.A.D.I. 5-Star Instruction & Specialty Courses
Sales & Service, Local & Island Dive Trips. Photo-Air

KEY LARGO DIVING HEADQUARTERS 24 Hour Hot Line
Rt. 1, Box 1936, Key Largo, FL 33037 305/451-1151
Pennekamp Reef Trips-Air-Rentals-Dorms-Apartments
Group Rates-Cay Sal, Bahama, and Tortuga trips

Miami — U.S. Aquanauts — 1 (305) 545-9000
35 S.W. Seventh Ave., Miami, Florida 33130
Sales, Rentals, Private and Group Classes
Compressed Air Systems and Key Trips

BRANFORD-CAVE DIVING CAPITOL-SUWANNEE RIVER
TOM BONEY CAMPS—Rt. 1, Keystone Hgts., FL 32656
Group Rates-3 Days-2 Nights-Food Lodging
\$27.50 p/person, min. 25. Resv. 904/473-3026

Oceanfront Cottage—U.S. 1, Marker 96, Key Largo, Fla. 20'
from Atlantic Ocean. 2 Br., 2 bath completely furnished.
Pool & tennis avail. Wkly Rates May-Nov. P. Tanner, 2015
South Lake Cannon Dr., Winter Haven, FL. 813/293-6889

Key Largo Condo—2 bedrooms, 1½ baths, accommodates 6,
walking distance to Pennekamp, totally equipped, tennis,
sauna, boat rentals. Write: Moon Bay Condos,
c/o D. Goldstein, 509 Long Rd., Pittsburgh, Pa. 15235

GEORGIA

DIVING WORLD USA
2945 Buford Hwy., Atl., Ga. 634-4354
All Brands - Whol. & Retail - Repair - Rental
YMCA, NAUI, PADI Classes 3 Man Chamber

BRIARLARK DIVERS (404) 321-9539
3561 LaVista Road, Decatur, Ga 30033
Instruction — Sales
Rental — Trips

HAWAII

CENTRAL PACIFIC DIVERS
780 Front St. Lahaina, Maui, HI 96761 (808) 661-4661
74-5484 Kaiwi St., Kailua Kona, HI 96740 (808) 329-3168
Daily diving trips-6 islands, 5-day Scuba class

SKINDIVING HAWAII - MAUI
1993 Kihei Rd., Kihei, HI 96753 (808/879-1558)
5 day Cert. Course - Daily Dive Charters
"Hawaii's Oldest & Largest"

GOLD COAST DIVERS (808) 329-1328
P.O. Box 2064, Kailua-Kona, HI 96740 329-9266
A complete line of sales & serv. for all your diving
needs. Daily scuba & snorkeling charters • 2 conv. loc.

SOUTH SEAS AQUATICS Ph: 538-3854, 538-3855
1125 ALA MOANA BLVD.
HONOLULU, HAWAII 96814
Sales - Rental - Boat Charters - Free Brochure

HAWAIIAN DIVERS 808-329-3407
Box 572, Kailua Kona, HI 96740
"The Experts in Kona"
Daily Trips, Rentals, Instruction, Sales

DIVIN' HAWAII CORP. (808) 833-2298
5085 Likini St. Honolulu, HI 96818
SCUBA & SNORKEL TOURS TWICE DAILY/NAUI & PADI Instr.
U/W Photography, Free Transport, Beginners Welcome

GARDEN ISLAND MARINE Nawiliwili Harbor
RR Box 180B, Lihue, Kauai 96766 808-245-6361
Fantastic Diving, NAUI/PADI, SCUBA Charters
Lessons, Sportfishing, Skiing, Pkg. Tours, Maps

ALOHA DIVE SHOP 395-5922
Koko Marina - Honolulu, HI. 96825
"GATEWAY TO HANAUMA BAY"
Scuba Instruction - Charters - Sales - Rentals - Air

AARON'S DIVE SHOP, INC. (808) 261-1211
39 Malunui Ave. Kailua, Oahu, Hawaii 96734
Rentals, Sales, Air, Inst. Hydros, Repairs
Scuba Dives on Farallon Sea-Scooters

AMERICAN DIVE HAWAII (808) 923-5382
P.O. Box 88161 Honolulu, HI. 96815
SCUBA & SNORKEL TOURS DAILY/5 DAY CERT.
U/W Photo, Hotel Pickup, Air, Sales, Rental

HAWAIIAN-PACIFIC DIVERS 244-5910
10 Market St., Wailuku, Maui, Hawaii 96793
Wailea/Kihei - Cat & Glassbottom Charters
Scuba & Snorkel, NAUI Instr., Sales, Rentals, Air

OCEAN ADVENTURES (808) 235-5055
46-216 kahuhipa st., kaneohe, hi. 96744
TOURS DAILY/INSTRUCTION/SALES/RENTALS/PHOTO/AIR
complete underwater specialists

AQUATICS KAUAI, Ltd. "Underwater Educators"
4442 Makaha Rd., Kapaa, Kauai, HI 96746 808/822-9213
Underwater photography, Advanced scuba ratings.
SNORKEL-SCUBA DIVE TOURS.

DIVE KONA AT KONA VILLAGE RESORT 808/329-2275
COMPLETE DIVE SERVICE. Write for brochures.
Send \$7.50 for "DIVE KONA" T-shirt, Size?
P.O. Box 3005, KAILUA-KONA, HI 96740

MAUI DIVE SHOP (808) 877-7704
Maui Mall - Kahului, HI 96732
Hotel & Classroom facilities on the Beach in Kihei
5 day Sport Scuba Class, Sales, Air, Rentals, Charters

BLUE WATER DIVERS (808) 661-8621
Whaler's Market Place, Lahaina, Maui, HI 96761
Daily Charters, Rental & Retail Eqmpt., Nite Dives, Instru.-
Novice-Experienced. "Individualized Diving"

DIVE MAKAI charters - KONA'S BEST - 808/329-2025
Tom Shockley (formerly with the OLD Hawaiian Divers)
P.O. Box 2955, Kailua - Kona, HI. 96740
SMALL, PERSONAL charters. YOU are boss! Write.

SEA SAGE PRO DIVING CENTERS
4544 Kukui St., Kapaa (KAUAI), HI. 96746 Kapaa •
May we gently introduce you Poipu •
To the wonders of our world Hanalei •

DAN'S DIVE SHOP, INC. (808) 941-2284
1382 Makaloa St., Honolulu, HI 96814
Hawaii's Sport Dive Center - Free Dive Information
Checkouts, 5 Day Classes, Tours, Air, Rent, Sales

ILLINOIS

AQUA CENTER 43 E. Downer, Aurora 896-3596
AQUAVENTURE 1655 Oakton, Des Plaines 297-7414
AQUAVENTURE Rowhling & Euclid, Arl. Hts. 398-5139
Instruction-NASDS-Air-Rentals-Tours-Services

WATER SHED DIVE SHOP
1028 E. Walnut, Carbondale, Ill. 62901 618/457-3397
Sales - Rental - Air - Repair - Recovery
NAUI Instructions

ELMER'S WATERSPORTS, INC. 866-8775
2508 Gross Point Rd., Evanston, IL
Equipment Sales - Services - Rentals - Air
Tours - Certified Instruction

DIVE & SKI 425-0822
2958 W. 95th St., Evergreen Park, Ill. 60642
Air, Instruction, Rentals, Repairs
Top Lines in EQUIPMENT

BERRY SCUBA
6059 W. Addison, Chicago. (312) 725-2032
12003 S. Cicero, Alsip. (312) 371-3366
Air - Rentals - Repairs - Instruction

ANCHOR IN SCUBA CENTERS
315 W. Ogden Ave., Westmont (312) 971-1060
6932 W. 16th St., Berwyn (312) 484-1018
UN/H2O Camera Shop - Instructions - Rentals - Tours

BLUE HOLE, INC. (309) 676-1852
4817 West Farmington Road, Peoria, Ill. 61604
INSTRUCTION - Sales - Service - Rentals - TOURS
Open M-W-F 4-8 p.m. - Saturday 9 a.m.-5 p.m.

INTERNATIONAL SCUBA CENTER
2 North Elmhurst Road, Prospect Heights 255-0155
9450 South Roberts Road, Hickory Hills 599-4441
3919 Oakton Street, Skokie 674-0222

MIDWEST DIVING SPECIALISTS, INC.
203 S. Linden, Normal, IL 61761 (309) 452-0222
YMCA, PADI, Air, Sales, Service, Rentals
M thru F 10 A.M.-8 P.M. Sat. 10 A.M.-5 P.M.

ANGLERS CHARTER SERVICE
P.O. Box 195, Palos Park, ILL 60464 425-2640
Wreck Diving - Lake Michigan Wrecks
Guided Dives - Rentals

ACE DIVE SHOP 312/530-7101
126 S. Villa, Villa Park, IL
Sales - U/W Tours Salvage Open Sundays
Air, Repairs, Hydro. Vip. Tumbling Instruction

INDIANA

SCHOLL'S PRO DIVE SHOP
U.S. Hwy. 12, by 2nd St. Bridge, Mich. City, Ind. 46360
3000 P.S.I. Fills, Charters, Rentals, Repairs, Hydro.
Sales, PADI & NASDS Instruction.

SCUBA JOE'S
14410 Morse St., Cedar Lake, Ind. 219/374-9077
Sales, Repairs, Air Fills
PADI Training Facility

KANSAS

THE DIVE SHOP, INC. K.C. area 913/381-4400
3606 W. 95th St., Leawood, Ks 66206
Sales 7 days, YMCA, PADI, NAUI. Local & ocean trips.
Photography, Repairs, Air, Rentals, Commercial.

Diver's Directory

(CONTINUED FROM PRECEDING PAGE)

KENTUCKY

LOUISVILLE LEXINGTON DIVE SHOP, 2478 Bardstown Rd.,
Louisville, KY 40205, 502/458-8427
809 Euclid Avenue, Lexington, KY 40502, 606/266-4703
'Everything in Diving'

LOUISIANA

TEMENTO'S, INC.
435 Sala Avenue, Westwego, La. 70094
(504) 340-7636
FOR ALL YOUR DIVING NEEDS

ADVENTURE SPORTS - 1817 Texas Ave. (318) 425-5870
Shreveport, LA 71103 NAUI-YMCA-PADI Instr.
Home of ARK-LA-TEX Diving School Inc & U/W Swim
Assoc. Sales-Repairs-Rentals-Air-Trips

SELL • QUALITY • DIVEX/AGA COMMERCIAL/SCUBA EQMPT.
"LEAD the way to safer diving" • GO FIRST CLASS • DEALERS
are #1 CALL 504/368-2986 TODAY!! or write: P.O. Box 504,
Harvey, La. 70059 Cable: DIVEX USA Telex: 58 7428

ADVENTURE SPORTS — 1817 Texas Ave. (318) 425-5870
Shreveport, LA 71103 NAUI-YMCA-PADI Instr.
Home of ARK-LA-TEX Diving School, Inc. & U/W Swim
Assoc. Sales - Repairs - Rentals - Air - Trips

MAINE

CONGRESS HARDWARE & PAINT CO. (TOMMY'S)
273 Congress Street, Portland, Me. 772-5357
Complete Line of Skin Diving Equipment - Sales
Service - Rentals - Hydrotest - Air Station

NORTHEAST DIVERS Phone: (207) 989-4330
163 North Main St., Brewer, Maine 04412
OPEN ALL YEAR 6 DAYS 9am-5pm. COMPLETE LINE of
SKIN & SCUBA EQUIP. - SLS-SVS-RNTLS-AIR-mail order.

AQUA SPORTS
999 Congress St., Portland, Me. (207) 772-4200
Skin & Scuba Sales, Service, Air Station,
Rentals, Instruction, NASDS, PADI

MARYLAND

DIVERS DEN, INC. Tel: 668-6866
8105 Harford Rd., Baltimore, Md. 21234
Sales - Service - Air - Rentals - Boat Trips -
Instr. - Custom Suits - Tours - Metal Detectors

DIVERS WORLD
923 Gist Ave., Silver Spring, Md. 589-7564
SALES-AIR-RENTALS & B.S.
Wreck Diving Trips Every Weekend

THE SCUBA HUT, INC. 301-761-4520
418 Crain Hwy., S.W. Glen Burnie, Md. 21061
Maryland's Full Service
Pro Dive Store

PARKS DIVING SUPPLY Tel. 301/655-8744
Wholesale & Retail Commercial & Sport Diving Equipment
SALES-SERVICE-RENTALS-LESSONS-CHARTERS-AIR-
MIXED GAS - 8027 Liberty Road, Baltimore, MD 21207

MASSACHUSETTS

NEW ENGLAND DIVERS, INC. — HEADQUARTERS
Tozer Rd., Beverly, Mass. (617) 922-6951
Mon.-Sat. (8:30 am-9 pm), Sun. (8:30 am-6 pm)
Olympic Size Indoor Pool for Instruction.

EASTERN DIVERS SUPPLY, INC. 617/453-7574
190 Middlesex St., Lowell, Mass.
Instruction — Rentals — Hydros
Local diving tours.

FRED CALHOUN'S U/W SAFARIS 617-283-4933
NAUI Adv. Scuba Training - Bahama Dive Tours
Mass. N. Shore boat-based dive trips - Lectures
Box 291, Back Bay Annex, Boston, Mass. 02117

INLAND DIVERS (617) 892-3323
100 So. Main St., Leicester, Mass.
Mon-Sat 9-9, Sun 9-5. Sales, Rentals, Repairs,
Air, Hydros, Instr., NAUI, Indoor Heated Pool

EAST COAST DIVERS, INC. 617/277-2216
213 Boylston St. (Rte. 9), Brookline, Mass. 02146
Full Service for your diving needs
Sales, Rentals, Repairs, Lessons, Air, Trips, and more

HYANNIS SCUBA CENTER (617) 771-6260
303 Iyanough Rd., Hyannis, Ma. 02601
Sales, Rentals, Service, Instruction
And more

MARINE CONTRACTING SCUBA SHOP, INC. 617-251-4895
193 Princeton St., No. Chelmsford, Mass. 01863
Sales, Rentals, Repairs, Air, Lessons CO-ED
NASI, NAUI, YMCA.

SOUTH SHORE SKINDIVERS, INC.
511 Washington St., Quincy, Mass 02169
617/471-9800 - 617/773-5452 — Hydrotests
Air Fills, Scuba Classes, Rep'r Trips

NORTHEAST SCUBA, INC. (617) 774-7296
125 Liberty St., Danvers, Ma. 01923
Sales, Air, Rentals, NAUI Instr.
Repairs, Hydros, 3 Day Service, 1 Wk. M.O.

THE SCUBA SHACK, INC. (617) 834-4087
1293 Ocean St., Rt. 139, Marshfield, Ma. 02050
Boat charters - Dive Trips - Air
Sales - Rentals - Repairs - Instruction And More

MARINE SPECIALTIES, INC. (617) 487-1764
Provincetown, Ma. (Cape Cod)
Air Station, boat rental, full line of equipment.
Poseidon Parkway, Dacor dealer

EAST COAST DIVING CHARTERS, INC.
Diving Charters from Cape Cod to Cape Ann, Mass.
For Cape Cod Call (617) 775-1185
For Boston and Cape Ann Call (617) 277-2216

MICHIGAN

SCUBA NORTH, INC. (616) 947-2520
13258 West Bayshore Drive, Traverse City, MI 49684
NAUI-PADI, Retail-Wholesale, Repairs, Hydro test, Lessons,
Charters, Rentals, Sailboats, Windsurfing, Compressors.

HIGGINS LAKE SPORTS CTR. 517/821-9241
9982 W. Higgins Lake Dr., Higgins Lake
Mich. 48627 Equipment - Rentals -
3000 PSI Air Station - Instr. - OPEN ALL YEAR

WOLF'S ENTERPRISES Tel. 983-1008
1207 Ann Street, St. Joseph, Mich.
Wholesale, Retail, Air, Rental
Your Marine and Water Sports Hdqts.

RECREATIONAL DIVING SYSTEMS
4501 N. Woodward, Royal Oak, MI 313-549-0303
3380 Washtenaw, Ann Arbor, MI 313-971-7771
U/W Photo - Carib Tours - Wreck Dives - Scubapro

SEAQUATICS, INC. 28 Ashman Circle
Midland, MI. 48640 (517) 835-6391
Sales - Rentals - Air - Repairs - Hydro - Wreck
Diving Trips — Instruction: NAUI, PADI, YMCA

RECREATIONAL DIVING SYSTEMS 313/549-0303
4501 N. Woodward, Royal Oak, MI. 48072
Scubapro equipment • U/W Photo • Wreck Dives
Caribbean Tours. Bonaire - Roatan - Cozumel - Cayman

MISSOURI

JOHN THE DIVER, INC. SCHOOLS OF DIVING
S.R.I., Box 459, Branson, Mo. 65616 417-338-2224
2555 So. Campbell, Springfield, Mo. 417-887-0606
110 E. 25th St., Joplin, Mo. 64801 417-624-4511

DIVER'S VILLAGE, INC. (314) 365-3242
Box 329, Lake Rd. W-20, Lake Ozark, MO 65049
Year 'Round Instruction - SSI - Indoor Pool
Full Service Pro Shop - Rentals, Air, Sales, Salvage, Trips

WEST END DIVING CENTERS, INC.
11004 Manchester, St. Louis, Mo. 314-822-3005
11215 Nat. Bridge Road 314-731-5003
Retail, Whse, Repairs, Compr, Rental, Instr., Air 5000

DIVERS EQUIPMENT & REPAIR SERVICE, INC.
5800 Barrymore Dr., KC, MO. 64134
SALES (Large Stock) Hydro-Air-Repair-Trips.
NASDS INSTRUCTION — INDOOR HEATED POOL

NEW HAMPSHIRE

LAPORTE'S SKINDIVING SHOP, LAKE SUNAPEE, N.H.
Route 103, Box 53, Newbury, N.H. (603) 763-5353
Sales, Service, Rentals, Air, Salvage
5 Star PADI Store — Certified Instruction

UNDERWATER SPORTS OF N.H. (603) 357-4430
334 Park Avenue, Keene, N.H.
Lessons - Sales - Service - Rentals - Air
Hydro - Trips - Salvage - Commercial Work

NEW JERSEY

THE DIVER'S DEN (201) 752-6050
232 Route 22, Green Brook, New Jersey
N.A.U.I. Certified Instruction
Sales, Service, Rental, Air, Wreck Trips

INNERSPACE DIVERS OF LONG BEACH ISLAND
2805 Blvd. Beach Haven Gardens, N.J. 609-492-0982
S. Jersey's ONLY Full Service Professional Dive Shop
Jersey Wreck Dives - OPEN ALL YEAR

Cedar Grove Divers Supply (201) 857-1748
Nat/Cert. Instr. - Private or grp. lessons -
Indoor heated pool - Full service dive shop
492 Pompton Ave., (Rt. 23), Cedar Grove, NJ 07009

MARLIN SCUBA
506 Rt. 17, Ramsey, N.J. 07446 (201) 327-6000
Equipment - Repairs - Air Station - Instruction
Indoor Pool - PADI - YMCA - NAUI - British Sub Aqua

LAKELAND DIVERS, Inc. (201) 887-0194
92 Rt. 10, East Hanover, N.J. — YMCA, NAUI, PADI
"The Full Service Dive Shop"
Indoor Heated Pool on Premises

PRINCETON AQUA SPORTS (609) 924-4240
306 Alexander Street, Princeton, N.J. 08540
YMCA, NAUI, PADI Instruc. - Sales - Rentals - Air
Service - Hydros - Charter Boats, Trips.

MANNY & MARY'S SPORT SHOP (201) 787-0508
Rt.-36, E. Keansburg, N.J. 07734
Air — Rentals — Repairs —
Instruction — Full Service

UNDERWATER SPORTS
Rt. 17, Rochelle Park, N.J. 07662
Certified Instructor (201) 843-7665
Indoor Pool - Full Services

Mar-Vel Airpower, Inc. (609) 962-6040
Rte. 130, South - Box K, Collingswood, N.J. 08108
HP and LP compressors, air testing, filters, sport
and commercial equipment repairs, catalog - charters

THE QUARRY DIVE SITE
Rt. 517, Hamburg, N.J. 07419 201/827-7630
Swimming - Scuba Diving - Cross Country Skiing
70 Acre Park - 7 Acres Water-Bar-Grill-Dive Shop

NEW YORK

RICHARDS AQUALUNG CENTER Times Square
233 W. 42nd St., Manhattan 10036. 212-947-5018
Largest Pro Dive Shop — All Latest Gear
Quantity Prices - Service - Courses, Basic & Adv.

WORLD WIDE DIVERS, INC. (212) 688-2510
155 East 55th Street, New York, N.Y. 10022
Sales - Repairs - Rentals - Air - Tours - Instruction
Manhattan's only exclusive dive shop.

THE DIVE SHOP, INC. Open 7 Days
110 W. Main St., Bay Shore, N.Y. (516) 665-2526
68' Dive Vessel, Indoor Pool, Rentals, Wreck Diving
NAUI-PADI-YMCA Instruction, Repairs, Hydros, Air \$1

BAY/SCUBA SPORTS (212) 748-6848
10004-4th Ave., Brooklyn, N.Y. 11209
Lowest Prices, Instruction, Wrecks
Refills, Sales, Rentals, Hydro.

HARVEY'S MT. SHEEPSHEAD DIV. CTR. (212) 743-0054
3179 Emmons Ave., Brooklyn, N.Y. Sheepshead
Bay-Instant Refills-5000 PSI-Custom Suits
Instr. - Low Prices - Hydrotesting - Wrecks.

CENTRAL SKINDIVERS Open 7 Days
2608 Merrick Rd., Bellmore, N.Y. (516) 826-8888
160-09 Jamaica Ave., Jamaica, NY (212) 739-5772
Rentals — Heated Indoor Pool — 59 Ft. Wreckboat — Air \$1.00

BROOKLYN DIVERS' SCHOOL & SUPPLY
2917 Ave. I, New York City's oldest exclusively
dive shop. Full Service. Instruction. Wholesale - Discount Retail
Open 7 Days (212) 377-9461

KINGS COUNTY DIVERS CORP.
Brooklyn's Full Service Pro Shop
Authorized Scubapro Dealer
3040 Ave. U 212/648-4232

72's - Home of Hampton Bays Divers, Inc.
Flanders Rd., Riverhead, L.I., N.Y. 11901
Indoor-Heated pool (516) 727-2642
Complete SCUBA facility (1/4M E/O Big Duck)

EAST COAST DIVING, INC. (212) 979-6056
1724 Hylan Blvd., Staten Island, N.Y. 10305
Air, Sales, Service & Rentals
40' Charter Vessel "Kiwi"

NIAGARA SCUBA SPORTS 6 Days, 4 Evenings
2048 Niagara St., Buffalo, N.Y. 716/875-6529
PADI, SSI, YMCA, Basic, Adv., Specialty Course, SIs, Rntls
Cert. Pure Air, Tank Tstng., Rprs., Tours, Local Dive Trips, Salvage

PROFESSIONAL DIVE TRIPS, INC. (212) 332-9574
Capt. Bill Reddan - 3662 Shore Pkway, Brooklyn, NY
Aboard 40' M/V "Terry." USCG Lic., Full Equipment
Wrecks, Lobster, Nite Dives, Adv. Courses YMCA/PADI

DANNY'S DIVE SHOP (516) 223-8989
1579 Grand Ave., Baldwin, N.Y. 11510
Dan Capalbo welcomes old friends and new divers.
Sales, Service, Rentals, Air, NAUI/PADI Instr.

NYPENN DIVERS & SPORTS SUPPLY, INC.
400 Prospect St. Exit 71 off Rt. 17
Binghamton, NY 607-729-4988
Sales-Service-Rentals-Trips-Instruction

NORTH SHORE DIVING CENTER (516) 757-2252
58 Larkfield Rd., E. Northport, NY. NASDS, NAUI,
Basic & Adv. Inst., U/W Photo courses, Sales,
Repairs, Air, Rentals, Charters, Hydros, Travel

MARSHALL'S PRO DIVING SERVICE (607) 387-7321
Heart of the Finger Lakes (near Ithaca)
Frontenac Road, Trumansburg, N.Y.
Cert. Inst. - Sales - Service - Rentals - Air

WESTCHESTER DIVE CENTER & SCHOOL (914) 937-2685
62-66 Westchester Ave., Port Chester, N.Y.
SALES-AIR-RENTALS-CUSTOM SUITS-SERVICE
PADI Training facility — CALL FOR MAILER

NATIONAL AQUATIC SERVICE, INC. (315) 479-5544
1425 Erie Blvd. East, Syracuse, New York 13210
NASDS Instruction - Sales - Service - Rentals - Tours
Open 9 to 5 Daily.

NORTH CAROLINA

DIVE THE GRAVEYARD ABOARD PARAGON II (919) 353-0412
32', Fully Eqpt., Fast & Comfortable, Cert. Capt. & Diver
THE SCUBA CENTER, Inner Space Specialists, Full Sales &
Serv. NAUI, PADI 1909 Lejeune Blvd., Jacksonville, N.C.

OHIO

BUCKEYE DIVING SCHOOLS (216) 439-3677
46 Warr. Center Rd., Bedford, OH
Lg. Stock of Major Brands, Repairs, Rentals, Trips to
San Salvador, Belize, Lake Erie. Call for Schedule.

SUB-AQUATICS, INC. 216-467-5575
10333 Northfield Rd., Northfield/Cleveland, OH 43068
Sales, Service, Air, Rentals, Good Prices!
Ohio's Largest Equipment Wholesaler

PRO DIVERS SPECIALTIES
425 West McCreight Ave., Sptld, Ohio 45504
1-513-323-5613
PADI - Rentals - Air - Sales - Repair

OKLAHOMA

DIVE SHOP — 1111 S. Commerce, Ardmore. 223-1032
Air-Sales-Rentals-Custom suits-Scubapro 223-2034
Open Sun. April 1 thru Oct. 1. Cozumel-Bahama Trips.
Large EQ Stock. A Complete Pro Shop. NASDS.

OREGON

NORTHWEST DIVERS SUPPLY, INC. (503-267-3723)
825 S. Broadway, Coos Bay, Or. 97420
Sales, Rentals, Air, Hydrotesting, Gold Dredging
Equip. NASDS Instruction, Trips.

PENNSYLVANIA

CEDAR RUN POOL & SCUBA SHOP
Camp Hill, Pa. 17011. (717) 737-8552/766-6781
Scuba Sales and Instruction
Bill & Betty Whitlock

SMOKEY'S DIVER'S DEN 717-393-5333
412 N. Duke St., Lancaster, Pa. 17602
Air-Cert. Instr.-Rentals-Sales-Service-Recov. U/W
Tours. Lecture-Slides-Movies for Schools - Clubs

DIVING BELL, INC. 215/PO3-6868
681 N. Broad St., Philadelphia, Pa. 19123
Howard Pruyn, Manager - Closed SUN & MON
Free Parking on both PRUYN ("Prine") lots

SUB-AQUATICS (412) 531-5577
1593 Banksville Rd., Pittsburgh, Pa.
Factory Auth. Services. Tank Hydro & Clean
Rentals, Air, All Brands, NAUI, YMCA, PADI

TEACH/TOUR DIVING COMPANY (215) 759-6950
138-C Bell Ave., Nazareth, PA 18064
Nat. Hdq. Jamaica & TXOBAGO Diving Tours
P.A.D.I. ITC Headquarter; 9-5 daily.

DON COOK'S SCUBA EQUIPMENT (717) 326-2091
940 Market St., Williamsport, Pa. Closed Wed.
Air - Cert. Inst. PADI - Sales & Service
Pro Dive Shop

PROFESSIONAL DIVING SERVICES CO. 274-7719
726 Pittsburgh St., Springdale, Pa.
Basic, Advanced Scuba by Dick Geyer (Navy div.)
Equip., Sales & Service, Air, Lectures, Movies

YORK SKIN DIVERS' SUPPLY, INC. (717) 854-3133
1505 S. George St., York, Penna.
Instructions - Sales - Rentals - Air
Service - Commercial Diving/Communications

T.C.'S DIVE SHOP (215) 628-4935
318 E. Butler Pike, Ambler, Pa. 19002
Sales - Rentals - Dive Trips -
Repairs - Air Fills - Instruction

ATLANTIS DIVING CENTER
4363 Main Street, Manayunk, Phila. 19127
215/IV3-8650, Howard Pruyn, Manager
Closed Sunday and Monday

SEA-WORLD DIVERS 215/432-6866
1113 Union Blvd., Allentown, PA 18103
FULL SERVICE-Air-PADI INST-Sales, Repair, Rentals
Island Tours-Lectures-ALL YR. DIVING ACTIVITIES

RHODE ISLAND

VIKING DIVE SHOP Tel. 847-4179
111 Bellevue Ave., Newport, R.I.
Air, Rentals, Repairs, Sales, Hydrostats
Wet Suits Tailored - NASDS Instruction

DIVER'S WORLD OF R.I.
754 Main St., E. Greenwich, R.I. 401/884-5141
2060 Smith St., Centerville, R.I. 401/231-2212
Cert. Instr. Hydros-Air-Unisuits-Poseidon

RHODE ISLAND DIVER'S SUPPLY (401) 274-4482
209 Elmwood Avenue, Providence, R.I.
Air, Rentals, Repairs, Sales, Hydrostats
NASDS Instruction, Indoor Heated Pool

SOUTH CAROLINA

NEPTUNE DIVE & SKI, INC. (803) 279-2797
133 Georgia Ave., N. Augusta, S.C. 29841
Sales - Rentals - Air - Hydrostatic - Tours
Professional Instruction — NASDS

THE WET SHOP 744-9276
5121 Rivers Ave., Charleston, S.C.
Instruction, Sales, Service, Rentals, Charters,
Hydro Test - 5000 psi Air - Photo Equipment

TENNESSEE

DIVE SHOP INSTR.-NASDS
3149 Popular, Memphis, Tenn. 38111
SALES - RENTAL - AIR - REPAIRS - TOURS
(901) 324-0267 or 324-2686

TEXAS

DIVER'S WORLD, INC. (No. Dallas)
632 S. Central Expwy., Richardson, TX 231-7865
Major Brands, Sales, Air, Rentals, Repairs, Hydro-World-
Wide Trips, NAUI Instr. Nikonos, Zodiac Inflatable Boat

PADRE ISLAND DIVE SHOP
4455 So. Padre Island Dr. 512-855-2821
Corpus Christi, Tx. 78411 PADI, YMCA
Trips to Oil Rigs & Liberty Ships, Rentals, Sales, Air

BLUE WATER DIVING SCHOOL (SSI)
910 Westheimer, Houston, TX 77006 713/528-0634
Downtown Location - Scubapro - Gulf Dives
Group Cozumel Trips - Se Habla Espanol. Photo Equip.

VERMONT

NORTHERN DIVERS INC. (802) 862-3881 (B)
65 Main St., Burlington, VT
NAUI Instruction, Sales, Rentals, Repairs, Commercial
5000PSI Air, "A Professional Dive Shop"

VICTORY AUTO STORES 802/862-0963
145 Cherry Street, Burlington, VT 05401
Air - Reg. & Valve Repairs - Hydros Wholesale & Retail
H.P. Air Compressors - New-Used-Rebuilt

VIRGINIA

AQUA-LUNG DIVING CENTER, INC.
805 W. Little Creek Rd., Norfolk, VA 804/423-0537
9601 Jefferson Ave., Newport News, VA 804/596-1914
Sales-Rentals-Repairs-Hydro-Air-Instruction

SKI & DIVE SHOP (703) 683-2220
1545 N. Quaker Lane, Alexandria, VA 22302
Full Service professional dive shop. INSTRUCTION-SALES
REPAIRS-AIR-TRAVEL. Authorized Scuba-Pro dealer.

BLUE RIDGE DIVE SHOP 804-293-6984
1726 Allied St., Charlottesville, Va. 22901
Sales, Service, Air, Rentals, Hydro, Instr.
Comm. Diving, Pkg. Deals, Rock-Shell Shop

WASHINGTON

NEW ENGLAND DIVERS, INC.
11009 - 1st Ave. S, Seattle, Wa. 98168 246-8156
Hwy. 99 & 252 So., Kent, Wa. 246-3337
Northwest Mail Order Division 206/246-8156

WISCONSIN

ON THE ROCKS - Scuba Headquarters
Lodging-Rentals-Charter Vessel-
Oil Free Air-Guided Dives (414) 854-2808
Route 1 - Box 164 - Ellison Bay, WI 54210

FONTANA ARMY-NAVY STORE, INC.
Hwy 67, Fontana, Wis. (414) 275-2220
251 State St., Madison, Wis. 608-257-5043
Air - Instructions - Equipment - Rentals

3 LITTLE DEVILS SCUBA DIVE SHOP
Rt. 4, Hwy. 123, Baraboo, Wis. (608) 356-5866
North Ent. to Devil's Lake State Park
Sales - Lessons - Air - Rental - Great Diving!

AUSTRALIA

CAIRNS BARRIER REEF DIVERS. Extensive Trips
to the Great Barrier Reef on the "Osprey" - Rentals
NAUI Inst. - Further info 47 Shields St., Cairn
Old., Aust. 4780. cables: "OSPCHARTERS" Cairns
Barrier Reef Dive Cruises with PETER TIBBS
2-20 days 5-20 people. FAUI-CMAS instructor
sales, service, hire equipment, guides.
P.O. Box 1321, CAIRNS QLD, 4870 AUSTRALIA Ph. 512604

BAHAMAS

UNDERWATER EXPLORERS SOCIETY (UNEXSO)
Box F-2433, Freeport, Bahamas (809) 373-1244
Famous facility - Reef Trips - NAUI Courses
Group Rates - 18' Deep Tank - Chamber - Air

WALKER'S CAY, Abacos 305-522-1469/800-327-1791
Diving adventures day & night, many reefs, NAUI.
Excel. accommodations, individual & group packages.
Write: 700 S.W. 34th St., Ft. Lauderdale, Fla. 33315

BIMINI UNDERSEA ADVENTURES 305/763-2188
Specialize Complete Wholesale Group
Packages - Dive Shops - Clubs
Write: P.O. Box 4960, Ft. Lauderdale, Fla. 33338

FREEPORT-Oceanview Apt., \$35/Day, \$225/Wk. for 5 Rm. -
2 bath Apt. Incl. Air Tanks. Near dive clubs & resort area. Fully
equipped kitch., linens, T.V., pool. (305) 574-2604
Brochures: E. Durksen, 1725 Haverhill, Deltona, FL 32725

HARBOUR ISLAND, VALENTINE'S YACHT CLUB AND INN
Box 1, Harbour Island, Bahamas. For Resvns.—809/333-2142
or Bahamas Reservations Service 800/327-0787
in Florida 800/432-5595, in Canada ZEnith 99110

Scubahamas 809/373-3040
P.O. Box F1261, Freeport, Grand Bahama
Complete Dive Center - fully equipped shop
Daily Reef Trips - Group rates

Victoria Inn & Scuba Club, Freeport, G.B.I.
Full Accommodations, Restaurant & Lounge
For Reservations & Info. 305/964-6686
1426 Range Ct., West Palm Beach, Fla. 33406

GEORGE TOWN, EXUMA — PEACE & PLENTY HOTEL
Specializing in family and small group Scuba Diving.
3 Blue Holes nearby plus underwater cave-Reas. rates.
For reservations - 1/800-327-0787 or direct 1/809-336-2551

Windtryst, Long Island, Bahamas
Your club should buy this spacious 4BR, 4Bath waterfront
house, fully furnished and equipped, for 1970 costs. Write:
R. J. Henderson, Deadmans Cay, Long Island, Bahamas

CHUB CAY CLUB-Berry Islands (809) 325-1490/800-327-0787
Full Dive Facilities. - 3 boats - Equip. Rental, First Class
Accom. - Indiv. & Grp. Pkgs. - Clubs - Pools - Fishing
Write P.O. Box 661067, Miami Springs, FL 33166

BARBADOS

Diver's Directory

(CONTINUED FROM PRECEDING PAGE)

WILLIE'S WATER SPORTS Tel. 02836 or 62273
Paradise Beach Hotel, Barbados, W.I.
Dive Grps.-Individual or Lessons. Full Scuba, Skin Diving
and Water Sport Facilities. Accommodations arranged.

SCUBA SAFARI BARBADOS Phone 60621 or 60054
Hilton Drive, St. Michael, Bridgetown, Barbados
Complete Scuba Diving Services. Cert. Guides, Sales
Rentals, Instruc. Diving Pkg. from Canada & USA

BELIZE

ST. GEORGE'S LODGE — Varied Reef Diving
Diver designed private island resort
Comfortable accommodations. Good Food
DTI, 1036 N. Bundy, L.A., Ca. 90049 (213) 472-0940

BERMUDA

DAVE McLEOD'S SKINDIVING ADVENTURES
The Gables Guest House, Paget, Bermuda
Wreck & Reef Diving — Shallow Waters
Instruction & U/W Cameras Available

SHAFFER'S UNDERWATER WORLD 809/297-1777
Holiday Inn, St. George's, Bermuda 809/297-8222
PADI Instruction, Rentals, Air, Wreck & Reef
Diving on 50 Ft. Glass Bottom Boat, Resort Courses

BRITISH VIRGIN ISLANDS

MARINA CAY HOTEL & DIVE BVI LTD. Ph: 4-2174
Box 76, Road Town, Tortola, B.V.I.; J. T. Giacinto
NAUI #3491, Instr. Rentals, Air, Tours, Wreck
Diving, etc.; 6-acre Island Diving Resort.

Charter "BONAVENTURE" for Weekly Dive Tours
Capt. Manfred Zerbe, Road Town-Tortola Box 325, B.V.I.
49' Motorsailer - Compressor on Board up to 8 divers.
From \$385 per person, excellent meals & free liquor.

AQUATIC CENTRES — GEORGE & LUANA MARLER
Box 108, Road Town, Tortola, B.V.I. Phone: 42839
Dive the Rhone and Beautiful Reefs
Tours - Rentals - Air - Photography Specialists

Charter Deluxe Compressor Equipped 50 ft. Gulf Star
Ketch, DUTCH CONNECTION, for diving vacation in
Virgin Islands. Write Captain Bill Foley, Road Town,
Tortola, B.V.I. Ph. Tortola 43212 or Calif. 415/941-9377

CANADA

DIVE CAPE BRETON LTD. Tel. 902/733-2840
P.O. Box 130, Louisburg, Nova Scotia, Canada
Dive Tours and Packages-Individuals, Groups
Virgin 18th Century Man O'War, Shipwrecks.

ROWAND'S REEF 273-0704
5760 Cedarbridge Way, Richmond, B.C. 732-1344
2828 W. 4th Ave., Vancouver
Custom Wetsuits, Compressors, Equip. Catalog

ONTARIO DIVERS (705) 743-1015
1040 Lansdowne St. W., Peterboro, Ontario
U.S. Divers-Dacor-Seaquest-Fitzwright Suits-Unisuits
Spring and Summer Specials Available Now

POINTS WEST DIVING (604) 980-6501
1073 Roosevelt Cres. North Vancouver, B.C.
Sales - Rentals - Service
NAUI Instruction - Gulf Isds. Charters

COLOMBIA

SCUBA CONSULTANTS (613) 226-1207
1372 Clyde Ave., Ottawa, Canada
San Andres, Colombia: New! Unbelievable! Superlative!
Enquire about rates N.A. sole wholesaler

DOMINICAN REPUBLIC

MUNDO SUBMARINO, PRO DIVE TOURS 566-0340
Gustavo M. Ricart, #99 Sto. Dgo., Dom. Rep.
Snorkel, Scuba, Spearfishing, Deep-sea fishing
& Hunting trips/Group Pkgs./All year-round

ENGLAND

THAMES WATERSPORTS, LTD.
179-183 Fulham Palace Road
London W6 8QX, England
01-381-0558

COLLINS AND CHAMBERS LTD.
THE LONDON UNDERWATER CENTRE 01-985-0752
197-201 Mare Street, London E8 3QF, England
Everything for the Diver. Export & Mail Order.

GUAM

INTERNATIONAL DIVERS ASSOCIATION 565-2581
P.O. Box 6657, Tamuning, Guam 96911
P.A.D.I. 5 Star Training Facility
Full Service, Sales, Rental, Tours - One Off Island

HONDURAS

ANTHONY'S KEY RESORT - ISLA Roatan, Honduras.
Fully eqpt. scuba - Excel. shallow or deep diving right at
resort, barrier reef. Unlimited diving, food, grp. rates
U.S. Off. 3803 Wagonwheel Ct. Plano, Tx. 75023 214/422-4300

PIRATES' DEN HOTEL (606) 277-6004
Sandy Bay, Isla de Roatan \$239/7 days
Honduras, C.A.
Write for Low All Year Group Rates.

ROATAN LODGE, Port Royal, Roatan, Honduras, C.A.
Henry Morgan's historic pirate hideaway.
Enjoy superb diving, sailing, beachcombing.
Relaxed atmosphere, group rates, private airstrip.

REEF HOUSE RESORT — OAKRIDGE Harbor, Roatan, Isla
Honduras, C.A. Magnificent canyon & wall diving on
fishy south shore. Complete facilities, gourmet
food, intimate atmosphere, group rates 305/626-3790

Tired of diving with a crowd? 312/523-0732
DIVE WITH DOC! Coxen Hole, Isla Roatan, Honduras, CA
All major locations: West End to Port Royal
7 nights COMPLETE: Hotel Meals & 12 Dives - \$155 to \$285

SPYGLASS HILL RESORT - Roatan Island, Honduras. SUPER!
Two dives a day, boats, guides, meals and fresh water
pool all included in regular rates. Call 312/234-2222
or write ROSEO, 630 Western, Lake Forest, IL 60045

For Sale French Harbour, Roatan, Lge. 4 Bdrm. Hse. on
7½ Acres, Restr., Bar, Appr. 400' lagoon-oceanfront,
Private Pier. Nonexisting Diving - Rescue Sch. \$88,000.00.
Ms. Lange, Caribinn, French Harbour, Roatan, Honduras, CA

FOR SALE ON ROATAN ISLAND
Small well-known Resort on the magnificent south shore
offered by owner — write or call Mrs. La Mont,
"Maxims Restaurant," La Ceiba, Rep. of Honduras, C.A.

HONG KONG

BUNN'S DIVING EQUIPMENT CORPORATION, LTD.
306A Hennessy Road, Wanchai, Hong Kong
Sales of complete International Equipment
NAUI, PADI, BSAC & CMAS CERT. TOURS, SVC., RENTAL, AIR

FAR EAST DIVING EQUIPMENT CO., LTD./64742 DIVE HX
13-B Nullah Road, Kowloon, Hong Kong 3-808226-7
PADI, Sales, Rental, Air, Manufacturer, Exporter
Agents of U.S. Divers, Spirotechnique, Technisub

ISRAEL

LUCKY DIVERS—EILAT SCUBA CENTER, LTD.
Moriah Hotel, Gulf of Red Sea. Tel: 059-5749
ISRAEL'S NEWEST, MOST COMPLETE DIVE CTR. PADI, YMCA,
CMAS cert. Latest Amer. gear. A/C van to sites. Boat, JetSki rent.

NEVIOT - DIVING CENTER - HOLIDAY VILLAGE
Post Eilat, telex (07) 7783 (NEVHO-IL) Exciting diving
"Seafaris" along the Sinai Reefs. Internationally
recognized D. course. "Windsurfing" Write for further info

DOUBLE YOUR LUCK!
LUCKY DIVERS, Marina Hotel, Sharem-e-Sheikh
Boat dives, Amer. gear rental, guides, refills.
THE BEST WAY INTO THE RED SEA SINCE MOSES!

JAPAN

MACK'S DIVING OF JAPAN 052-(211)-1772
2-18-34 Nishiki, Naka, Nagoya, Japan
Dive Tours - Okinawa, South Seas
PADI Instruction, U/W Photo, Dive Shop Full Service

SEA TOPIA PRO DIVING CENTER OKINAWA, Inc.
593 Isa, Ginowan City, Okinawa 09889-2-5567
Custom made WET SUITS
Sales - Repair - Rentals - Air

MALDIVES

KURUMBA VILLAGE Rep. of Maldives, telex: 5003
cable: KURUMBA, MALDIVES.
Rentals - Dive Trips - Instruction - Group rates.
Dive paradise in Indian Ocean

MALTA

MALTA DIVING HOLIDAYS LIMITED — Tel. No. 36441
Dragonara Casino - St. Julians - Malta
Dive tours, instruction, sales, air, etc.
Diving Director: Vincent Milton

MEXICO

AQUA SAFARI 2-0101
Cozumel, Q. Roo, Mexico 2-0661
GEAR - AIR - BOAT - HOTEL RSVN & INFO
Dick Tompkins, Gringo Operator

GALAPAGO-INN DIVE RESORT
Cozumel, Q. Roo, Mexico P.O. Box 289 - Ph. 2-06-27
New Divers Headquarters in Mex-Caribbean
Full SCUBA, U/W Photo, Trips & Group Pkgs.

DISCOVER COZUMEL DIVE SHOP Ph. 2-02-80
P.O. Box 75 — Isla de Cozumel Q. Roo
Daily dive trips, Air station, Grp. Pckge.
Grp. rates, Lessons, Rescue Dpt., Rentals.

AQUA TOURS — Dive the Yucatan Reefs!
Can Cun, Q. Roo, Mexico. P.O. Box 528 Ph. 30100
Daily trips to I. Mujeres, Nizuc & P. Morelos
Instruction, rentals, group rates

BAJA, SEA OF CORTEZ (213) 271-4116/272-3011
8 Day Cruises on "MARISLA II" for 16 Divers
8 Staterooms, Air, Tanks - Group Rates. Contact:
BIT 9465 Wilshire Blvd. Suite 832, Beverly Hills, CA 90212

MICRONESIA/GUAM

INTERNATIONAL DIVERS ASSOCIATION 745-2581
P.O. Box 6657, Tamuning, Guam 96911
Sales - Repair - Rental - Instruction - Air
Tours of Guam, Truk, Palau, Saipan

MICRONESIA AQUATICS OF TRUK LAGOON—Tours arranged
for diving Truk Lagoon - Boats & Guides - Sales - Instr.
Rental - Air - Hotel Reservations - Complete tour & dive svcs.
P.O. Box 57, Truk Lagoon, E.C.I. 96942

NETHERLANDS ANTILLES

SUB SEA SAFARIS N.V.
Aruba Sheraton Hotel N.A. Tel.: 3900 or 4197
Open 7 days a week 9.00-17.00 Diving - Cruises - Repairs -
Snork - Rental - Air - Instruction - Retail.

Bonaire Beach Bungalows. Brand new, fully equip.
2 bdrms., airc., on beach, 3 min. from dwntwn., reasonable
Write: Bungalows P.O.B. 155, Bonaire,
Netherlands Antilles. Phone: 8585

MAHO WATERSPORTS, MULLET BAY, ST. MAARTEN Ph. 4387
Dive with the Pros on the 1801 wreck "Proselyte."
Tours by NAUI instr. on 25' MAKO.
Resort course avail. for novices.

PANAMA

SAN BLAS ISLAND
Moody's Pidentupo Village - Box 6-4092 El Dorado,
Panama, Rep. Panama — compressor-shallow or deep
diving in Cuna Indian Reservation

PHILIPPINES

BUNN'S PHILIPPINES DIVING EQUIPMENT CORP.
928 Pasay Road, Makati, Metro Manila - 853-676 or 872-134
P.A.D.I. Instruction, Rentals, Sales, Air, Repair
Divermaster Services, Tours, Custom Suits

AQUAVENTURE (PHIL.) INC./DIVE 7000 RESORTS
*708 Aurora Blvd., Queson City 79-86-48
*908 Pasay Road, Makati, Metro Manila 70-05-88
Dive Tours. Equip. Sale, Rental, PADI Instr. Air

SEA-US CORP. AT SPECIAL SERVICES
Box 12, NAVSTA SUBIC, Philippines
FPO San Francisco, CA 96651
Navy Cert., Air, Instr., Rentals, Repair, Maint.

PUERTO RICO

PUERTO RICO Luquillo beach house, 3 bedrms.
For rent Weekly. Groups invited.
Air, Instructor nearby (212) 233-5314
Edward Pinney, Box 460, Gracie Sta., New York, NY 10028

VIEQUES DIVERS—Full Service, Diesel Boat 36', Air,
Rentals, PADI Instr., Spearfishing, Live Reefs, P.O. Box
Customized diving, \$30.00 two tanks, 80' + vis. 1001
Vieques, Puerto Rico 00765 Tel: (809) 762-9702

DIVE P.R. VIRGIN ISLANDS DAILY or WEEKLY 36'
DIVE BOAT INNOVATION. Capt. GREG KORWEK (NAUI)
CARIBBEAN SCHOOL of AQUATICS. LA CONCHA Hotel
Bx 4195, San Juan, PR (809) 723-6090, 724-7609

CARLOS DIVE SHOP 809/863-3000
H.O. Sea Farms de PR, Inc.
Aquacultura-Salvage-Pipelines
PADI/USCG Lic., Box 478, Fajardo, P.R. 00740

CARIBBEAN UNDERWATER DIVING ASSOCIATION
Culebra Island, Puerto Rico 809/742-3191
PADI Instr., Sales, Rentals, Air, Write:
Gene Thomas, c/o CUDA 00645 Dive Tours

Cap de Mar Dive—10 days \$595 all incl., meals, room,
air, day, night, rock, boat diving, snorkel, scuba,
instr., reef, coral - 5 min. Cerromar Hotel - single, groups
Broc.: Box 29691, 65th Inf. Sta., P.R. 00929. 809/762-8032

SCANDINAVIA

AQUARIUS
Ostergat. 2, Malmo, Sweden 040/974040
Sales- Rentals- Air
Trips- Instruction

SOUTH PACIFIC

SCUBAHIRE — Fiji's only Scuba SPECIALISTS.
Div. exped. Fast Charter Boats, Gear Hire, air
DUTY FREE Gear. P.O. Box 777, Suva. Ph. 361-241
Tradewinds Hotel Marina. Write for brochure.

TAIWAN

TAIPEI DIVING & MARINE PRODUCTS ENTERPRISES CO., LTD.
4, Alley 5, Lane 12 Ba Teh Road, Sec. 3, Taipei, R.O.C.
PADI Instruction, Rentals, Sales, Air, Repair
Agents for U.S. Divers, Nihon Aqua-Lung

PACIFIC DIVING ENTERPRISE CO., LTD.
No. 38, Chinan Rd. Sec. 2, Taipei, Taiwan, R.O.C.
EQUIPMENT IMPORTER-RENTAL-SALES-REPAIR-AIR SERVICE
TELEX 21485 EUGNTRAD TEL: 3917752, 3939187

TOBAGO

SCUBA CONSULTANTS (613) 226-307
1372 Clyde Ave., Ottawa, Canada. Tobago: Heaven's dive
paradise on earth. Inquire about excellent pkgs.
N.A. sole wholesalers!

VIRGIN ISLANDS

JOE VOGEL (Ex-UDT) 809-774-2321
P.O. Box 7322, St. Thomas, U.S.V.I. 00801 775-4320
SCUBA Instr./Day & Night Dives/Air/2 Shops 775-1610
Oldest Cert. Diving School in US V.I.

CARIBBEAN SEA ADVENTURES INC. (809) 773-5922
Box 3015, Christiansted, St. Croix, USVI 00820
Complete Dive Shops Kings Wharf & 53B Company St.
Dive all St. Croix's Best Sites.

CARIBBEAN DIVERS 809/775-1935
Red Hook, St. Thomas, V.I. 00801
Tours, Instruction, Rental, Accom. Available
Fresh Air - Full Service Dive Shop - Group Rates

AQUA ACTION, INC. 809/775-3275
Wintberg Peak, St. Thomas, V.I. 00801
Scuba instruction/boat tours, wrecks
photog., air fills, night dives

WATERSPORTS CENTER 775-0755/774-5649
Sapphire Bay - Pineapple Beach, Box 2432, St. Thomas
cuba Instruction, Boat Dives, Night Dives
Reef & Wreck Dives-U/W Photo-Air-Rental-NAUI, PADI

VIRGIN ISLAND DIVING SCHOOLS AND SUPPLIES
Box 9707, St. Thomas, USVI 00801 809-774-8687
Tours & Classes for Beg. & Adv., Air Sales, Service
Rntl., Photo, Grps., Night Dives, Carib's most comp. dive fac.

ST. JOHN WATERSPORTS (THE DIVE SHOP)
Box 161 Cruz Bay, St. John VI 00830 (809) 776-6256
Scuba, Snorkel, Day Sail, Sport Fishing Tours-Daily
Full Service Dive Shop-Air-Rentals-U/W Photo PADI-YMCA

PRESSURE, LTD. (809) 77-DIVER
Box 3612, Christiansted, St. Croix, U.S.V.I. 00820
U/W Tours Day/Night, Photo, Rentals, Air, Instruction
Hotel Pkgs., Floating Shop and Boats on C'sted Wharf

WEST INDIES

DIVE ST. LUCIA LTD. Tel. 4127
P.O. Box 412, Castries, St. Lucia, W.I.
Complete Scuba Diving Services & Accom.
Dive Packages, Certified Instr. Guides

MARTINIQUE INTERNATIONAL DIVING CENTER
Full Service Shop - Diving 365 Days
Bernard LeGrand - Meridien Hotel
Trois Ilets Martinique - telex HOMER 641MR

TORTUGA CLUB — GRAND CAYMAN ISLANDS. Best diving
anywhere - NAUI Certif. Courses, 2 tk. boat dive daily, tennis,
sailing, water ski incl., A/C rms. on beach - Free brochure: Dept.
SD, Motivating Graphics, 2050-1 Tigertail Bl., Dania, FL 33004

ISLAND DIVE SHOP
Columbus Beach Cottages (apts. & rooms)
Box 90, St. Ann's Bay, Ja., W.I. Tel. 9722519
air station, rental, sales, instruction, tours

DIVE ST. VINCENT LTD.
Box #864, St. Vincent, West Indies Ph. 84714
Tours, Rentals, Air, Sales
PADI training facility. Write for information

NIKONOS REPAIRS FAST SERVICE

Write for brochures on camera repair and
flooded camera advice.

Capt. Bill Crawford's Tropic Isle Dive Shop
P.O. Box 755S, Key Largo, FL 33037
MM 1035, Shoreland Dr. (305) 451-1063

ATTENTION DIVE SHOPS DIVE BIMINI

Specializing in COMPLETE wholesale dive packages • 2 dive
boats—2 compressors—80 tanks • Package includes: Airfare
from Ft. Lauderdale, FL; ground transportation; room; all
meals; 3 dives per day including day of arrival & depart-
ure • Night dives, wall dives, wreck dives. Contact: NEAL
WATSON'S BIMINI UNDERSEA ADVENTURES, P.O. Box 4960,
Ft. Lauderdale, FL 33338 • Phone: (305) 763-2188

Estate Northside Valley

DIVE ST. CROIX, NW COAST. 2 mi. from Frederiksted
Pier w/in 3 mi of 13 dive sites. Winter \$16/day, summer \$12.
Tanks-lead inc. Bring backpack, belt, regulator & BC. Dive shop
near. EZ beach access, guest house on priv. estate w/300 acre
tropical rain forest. Box 281, Frederiksted, St. Croix, V.I. 00840
(809) 772-0558 or (518) 851-9080 NY.

NAUI INSTRUCTOR COURSE IN BELIZE

St. George's Lodge in Belize, Cen-
tral America will be the site of an un-
usual NAUI Instructor Certification
Course during July 8 - August 4, 1979.
A standard instructor's course will be
enriched with two boat dives each day
in order to give the candidates the op-
portunity to plan, organize and direct
dive boat operations, resort dive op-
erations and emergency procedures in a
realistic setting. The course curriculum
will be presented by Dr. Glen Eg-
strom, Ken Brock, Jack Daniels, Dr.
Lynn Eldridge and the staff of St.
George's Lodge including Fred Good,
the host, who is also a licensed 100 ton
boat skipper.



"It's just a warm smile of greeting!"



Win a Presidential Sports Award in a lifetime sport

For information
write:
**Presidential
Sports Award**
GREENE,
RHODE ISLAND
02827



NOTICE TO SUBSCRIBERS:

From time to time, we
permit reputable companies
to send announcements of
their products or services to
our subscribers in the mail.
Requests for this privilege
are examined with great
care, to be sure they will be
of interest to our readers.

If you prefer not to receive
such mailings, and want
your name in our files only
for mailing the magazine to
your home, please write us,
enclosing a current address
mailing label. Please address
your request to Bruce Boyd:

**PETERSEN
PUBLISHING COMPANY**

6725 Sunset Blvd., Los Angeles, CA 90028

FAMOUS "SKINDIVER" CUSTOM WET SUITS

Only **\$57⁹⁵**

Order direct and **SAVE!**
Satisfaction guaranteed

Men's or women's custom tailored to your measurements with high pants and collar for super warmth. Finest wet suit material, completely nylon lined. Features sewn seams, non-corrosive zipper and twist locks. 1/4" or 3/16" material — mark choice below. Just fill in your measurements and mail with check today. Quick delivery. Your choice of thickness.

1/4" 3/16"

Sex Age

Height

Weight

- ___ Ankle
- ___ Calf
- ___ Knee
- ___ Thigh
- ___ Hips
- ___ Waist
- ___ Chest
- ___ Neck
- ___ Wrist
- ___ Forearm
- ___ Elbow
- ___ Biceps
- ___ Ankle to Knee
- ___ Ankle to Crotch
- ___ Ankle to Waist
- ___ Shoulder Seam to Crotch
- ___ Wrist to Elbow
- ___ Bra and Cup Size
- ___ Wrist to Armpit
- ___ Hat Size

☐ GLOVES \$9.95

☐ BOOTS \$10.95

☐ HOOD \$9.95

MEN OVER 225 lbs. ADD \$15.00
WOMEN OVER 180 lbs. ADD \$15.00

Add \$4.00 Postage & Handling SORRY, NO C.O.D. (\$5.00 Canada, plus currency exchange) Clip and Mail This Handy Coupon Today! To: **Skin Diver Wet Suits**

1632 S. 250th
Kent, Washington 98031

Name

Address

City

State

Zip

O'GARA TRAINS AT CDA

Twenty-five year old Laurie O'Gara is Coastal Diving Academy's first female candidate for its Deep Sea Commercial Diver program. The petite Ms. O'Gara, 5'3" tall and weighing 105 pounds, is currently training to prepare herself for employment in a field that until recently was strictly a man's world.



To Laurie, entering this world of hard manual labor is not unusual at all. She has been working on and around the Ohio River for the past five years, in jobs ranging from turbine specialist and pile driver, to ship fitter's helper and diver's tender. Ms. O'Gara is a certified welder and a member of the Carpenter/Pile Driver/Diver Union. She has built buoys for the Army Corps of Engineers and recently completed building a work boat. The entire shell of the boat was welded by Ms. O'Gara.

Laurie has the option to go back to work for International Divers, Ludlow, Kentucky, a company in which she owns stock. When asked about her future plans, Laurie said she would like to take the next year off. To Laurie that means doing light commercial diving work in St. Thomas and working with the Underwater Archaeology Society.

The Coastal Diving Academy is located at 108 West Main Street, Bay Shore, New York 11706.

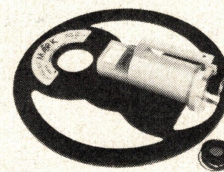
The diving equipment it pays to own

The Fishers underwater metal detector

VERY SENSITIVE WITH U/W EARPHONE

MARK 5
\$423

(Plus \$8.25 Shipping)



- SALT OR FRESH WATER
- DETECTS ALL METALS • FULLY TRANSISTORIZED • 18" SEARCH COIL • DETECTS A PENNY AT 4 1/2" — LARGER OBJECTS AT 5 1/2" • EASY TO READ 1 MA METER
- HEAVY DUTY 9V BATTERY • SINGLE KNOB CONTROL & SWITCH
- U/W EARPHONE • LARGE DETECTION AREA • 2 YEAR WARRANTY

You've invested money in diving gear — now invest in a metal detector and start getting a return on your investment. With a Fishers metal detector you'll begin finding all those rings, coins, motors and anchors you've been passing over all these years and never saw. Diving with a Fishers detector is fun and could be profitable.

MARK 1 (Most economical)..... \$218
MARK 3 (Most popular)..... \$295
MARK 7 (Boat Towed)..... \$580



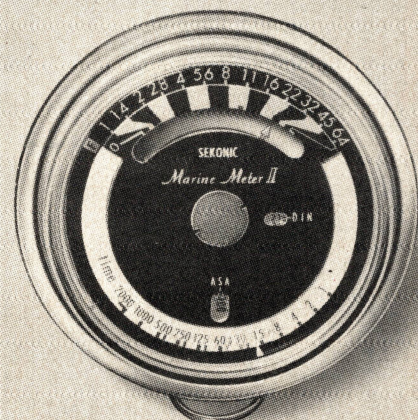
Find out more about these fine Fishers' products. Write for our complete catalog.

J.W. FISHERS MFG. CO.

Anthony St. (Dept. SD) Taunton, Mass 02780
(617) 822-7330

Sekonic Underwater Exposure Meter

Sekonic's 164B Marine II—a unique CdS meter built for underwater photography. Durable case is water- and pressure-resistant to a depth of 200 feet. Fluorescent dial; large knobs for easy adjustment with gloved hands. Can also be used in rain, snow or normal conditions. Complete with leather case and chain. Under \$150. At photo dealers or dive shops everywhere.



For information write:
COPAL CORPORATION OF AMERICA
58-25 Queens Blvd., Woodside, N.Y. 11377
Tel: 212/672-9100

PICTURE THIS.

DACOR HELPS YOU CAPTURE THE EXCITEMENT OF THE UNDERWATER WORLD.

At Dacor, we're not only divers, we're also totally involved in underwater photography, which is a major interest in our sport. In fact, we take all the underwater photos you see in our catalog and ads, like this scene of an amphora being brought up from the bottom of the Mediterranean after thousands of years. Dacor makes it easier for you to capture the excitement of diving on film. When Dacor designs and manufactures underwater photo equipment, you know it will meet the needs of the most demanding professionals and have the quality you expect on everything bearing our name.



Underwater Light Meter Model DLM—A precision built exposure meter designed to meet the diving photographer's exacting requirements. Large easy-to-read ASA scale. Non-slip ridge on ASA/Speed control knob assures quick easy settings. Positive friction feature holds settings securely. Molded-in bracket for secure attachment to variety of photo tray handles, includes bracket adaptor, bolt, nut, washer, owner's manual, battery, spare "O" ring and silicone "O" ring grease. In hard case with protective foam liner. **Optical Viewfinder Model PV101**—Unique unit with optically ground glass lenses. Features an indexed elevation control knob for making parallax adjustments, which solves a major problem for underwater photographers. Mounts on standard shoe and secures with thumb screw. Fits Nikonos and any underwater housing with shoe mounted above lens. Interchangeable framer masks included: 28mm, 35mm and one blank mask. **Shutter Release Model PA103**—Thumb control shutter release and film transport for Nikonos I and II. Allows full view of shutter speed readings on Nikonos selector knob. **Photo Tray and Handle**—Excellent organizer for underwater photography. Stainless steel tray securely holds Nikonos I, II or III cameras, light meter and strobe or flash. Permits easy, one-hand opera-

tion. Available with phenolic handle (**Model PA101**) or rosewood handle (**Model PA104**). **Compact Photo Tray and Handle**—smaller version, with 7½" tray for camera and light meter. Available with phenolic handle (**Model PA102**) or rosewood handle (**Model PA105**). **Rosewood Camera Tray Handle Model PA552**—Grip contoured resin-impregnated rosewood handle fits most camera tray assemblies. Unaffected by saltwater. (Included on tray models PA104 and PA105.) **Divers & Cameras Model PBH**—The "bible" of underwater photography by noted author/photographer Joe Strykowski. A must for beginner and professional. **Extension Tubes for Macro Photography**—Accurately machined aluminum sleeve

is black anodized to match Nikonos finish and provide corrosion resistance. Bayonet mounts and "O" ring seals precisely mate with Nikonos body and lenses; forms waterproof and pressureproof seal. Extension tubes allow underwater photographer to use Nikonos 28 and 35 mm lenses to their fullest potential for close-up work. **Model PAR1** provides 1:0.9 with 28mm lens. **Model PAR2** provides



1:2 ratio with 35mm lens; 1:1.8 with 28mm lens. **Model PAR3** provides 1:3 ratio with 35mm lens and 1:2.5 with 28mm lens. **Framer for Use with Extension Tubes**—Black epoxy-coated brass heavy-duty framer features a unique system. End corner posts can be removed and attached to the front cross bar in a horizontal position for storage and transport. Fastens quickly and securely to extension tubes with knurled thumb screw. Other Dacor framers designed to fit every application:

Model No.	Use with Extension Tube	Use with Nikonos Lens
PF28R1	PAR1	28mm
PF28R2	PAR2	28mm
PF28R3	PAR3	28mm
PF35R1	PAR1	35mm
PF35R2	PAR2	35mm
PF35R3	PAR3	35mm

WE MAKE WHAT YOU NEED TO GET THE MOST OUT OF UNDERWATER PHOTOGRAPHY.

Send \$2.00 for Dacor Divers Kit. Includes catalog, cloth patch, decomp. table, decals.



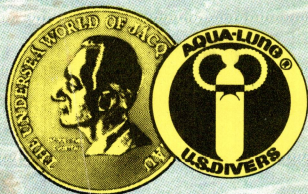
DACOR CORPORATION
161 Northfield Road
Northfield, Illinois 60093
P.O. Box 157

AMERICA'S FINEST RUBBER PRODUCTS

WE PUT THE QUALITY IN AT HOME...

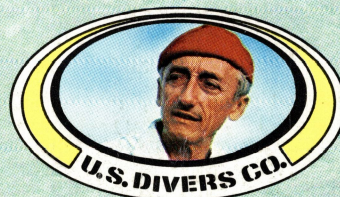


DON'T SETTLE FOR LESS.



U.S. DIVERS CO.

Jacques-Yves Cousteau
Chairman of the Board



3323 West Warner Avenue, Santa Ana, Calif. 92702

Send \$1.00 for the latest Aqua-Lung® Catalog.

A Subsidiary of Liquid Air Corp. of North America



* Copyright U. S. Divers Co. 1979 Part No. 7577-47